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"Scire est nescire, nisi id me
Scire alius sciret."

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THE REPUTATION OF THE HOTWELLS (BRISTOL) AS A HEALTH-RESORT.

BY

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(Continued from p. 152.)

In 1798, after "much difficulty in finding a home for it, on account of a popular impression that 'medicated airs' were explosive, and that the complaints, which were to be cured by inhaling them, might be infectious,"[1] the contemplated Pneumatic Institution of Beddoes was opened in Dowry Square.[2]

[1] *Thomas Poole and his Friends.* By Mrs. Henry Sandford, 1888, vol. i., pp. 253-4.

[2] "The house in the corner, forming the north angle of the Square" (Cottle's *Early Recollections*, 1837, ii. 29). The following announcement is in the *Bristol Directory* for 1799-1800:—

HOTWELLS
MEDICAL PNEUMATIC INSTITUTION.

Physicians—T. Beddoes, M.D. R. Kinglake, M.D. P. Roget, M.D.
Medical Superintendant—H. Davy. *Attendant*—P. Dwyer.

Roget, who was then only twenty years of age, afterwards became famous as the compiler of the well-known *Thesaurus of English Words and*

The necessary funds had been completed by a gift of £1,000 from Thomas Wedgwood, who was a patient of Beddoes and was then living at Cote House with his brother John. He said that it would be worth that sum to be sure "that the elastic fluids would *not* be serviceable in medicine."[1] Humphrey Davy,[2] then only nineteen years of age, was its superintendent.

Phrases; he lived on or near the premises (*Bristol Directory*, 1799-1800, p. 6). In 1800 out-patients were received every Sunday and Wednesday morning (*The Medical and Physical Journal*, 1800, iii. 488), and accommodation was provided for two or three paralytic in-patients, as the inhalation of nitrous oxide "was peculiarly serviceable to persons labouring under palsy" (*Anti-Jacobin Review and Magazine*, 1800, vi. 425). In the 1805 Directory the word "Pneumatic" did not appear in the title. Beddoes and J. E. Stock, the future biographer of Beddoes, were then physicians, and John King was surgeon. The days of attendance were Sundays at Dowry Square, and Mondays, Wednesdays, and Fridays at Little Tower Court, Broad Quay. In 1806 there is no mention of any attendance at the Hotwells. In 1809, the year after the death of Beddoes, its title is "Preventive Medical Institution," and Broad Quay only is given as the place of the Institution. In the 1813 Directory it is not mentioned.

[1] Mrs. Henry Sandford's *Thomas Poole and his Friends*, vol. i., p. 254. Thomas Wedgwood and his other brother Josiah became responsible for an annuity of £150 to Coleridge, the trustee for which was the Rev. John Prior Estlin, Unitarian minister at Lewin's Mead, and master of a successful school on St. Michael's Hill. Mr. Estlin's family had a marked influence on the medical life of the city. Dr. James Cowles Prichard married one of his daughters. His son, John Bishop Estlin, who became famous as an oculist, was the founder of the Bristol Eye Dispensary.

[2] Davy came to Clifton in October, 1798, and stayed with Beddoes. At the beginning of 1799 he went to live at the Pneumatic Institution (Dr. T. E. Thorpe's *Humphrey Davy*, 1896, p. 40). It was here that he made his famous investigations into the properties of nitrous oxide, which had been discovered by Priestley in 1774. In 1799 Maria Edgeworth, a sister of whom Beddoes had married, was staying in Clifton with Mrs. Edgeworth, who, in reference to the experiments, wrote: "A young man, a Mr. Davy, at Dr. Beddoes', who has applied himself much to chemistry, has made some discoveries of importance, and enthusiastically expects wonders will be performed by the use of certain gases, which inebriate in the most delightful manner, having the oblivious effects of Lethe, and at the same time giving rapturous sensations of the Nectar of the Gods!" (*Life and Letters of Maria Edgeworth*, 1894, vol. i., pp. 65-6). And on July 12, 1799, Southey, writing to his brother an excited account of Davy's results, said: "Davy has actually invented a new pleasure, for which language has no name" (*Life and Correspondence of Robert Southey*, 1850, vol. ii., p. 21). Although its capabilities for surgical anæsthesia were recognised, it was, as its popular name implies, mostly used as an amusement. Its application was made the subject of a caricature by Gillray in 1802.

The treatment was not entirely, or even mainly, pneumatic. That was reserved only for "those patients who seemed to derive no benefit from the administration of medicines in the common form."[1] In 1799 Beddoes issued a pamphlet, *Notice of Some Observations made at the Medical Pneumatic Institution*; in this, with his characteristic energy, he defended[2] his plans, notwithstanding the failures that had occurred. That he himself soon lost faith in his special treatment by inhalation may be gathered from his acknowledgment "that the trials that have been made of factitious airs and vapours, seem, as yet, very far from having produced any thing like a successful mode of treating consumption,"[3] and Dr. Stock, in his biography of Beddoes, says that in 1803 "the pneumatic practice was almost abandoned,"[4] and the institution became an ordinary dispensary,[5] with the special feature of practical instruction in the art of preserving health.[6]

[1] *Memoirs of the Life of Thomas Beddoes, M.D.* By John Edmonds Stock, M.D., 1811, p. 157.

[2] *Op. cit.*, p. 177.

[3] *Essay on the Causes, Early Signs, and Prevention of Pulmonary Consumption*, 1799, p. 264.

[4] *Op. cit.*, p. 302.

[5] "In order that the trials might be deliberately proceeded in, a fortunate thought occurred to Dr. Beddoes: namely, not to bribe, but to reward all persevering patients; for before the Pneumatic institution was broken up, they allowed every patient sixpence per diem" (Cottle's *Early Recollections*, 1837, ii. 41). Although Cottle states that he learned this from Davy, Miss Meteyard says (*A Group of Englishmen*, 1871, p. 91) it was not exactly the case, and that the money the patients received was the return, under certain conditions, of the half-crown which had to be deposited upon entrance. As an indication of the range of observation at the institution, and of the thoroughness of his work, may be noticed the "Plan of a Public Scrutiny of certain Medicines, lately proposed as anti-venereal, at the Pneumatic Institution near Bristol," which Beddoes put forth in July, 1801 (*The Medical and Physical Journal*, 1801, vi. 165). Vaccination was also done there, and Beddoes, who hesitated at first to adopt it, advocated a national subscription for Jenner, and he said that "probably those very Members of Parliament who from a sense of duty, shewed themselves most sparing of the public purse, will be among the most forward to open their own" (*Ibid*, 1802, viii. 7). The 122 cases during December, 1801, are specified in *The Medical and Physical Journal*, 1802, vii. 301–2, and a classified list of the cases of the 678 patients who attended from January 1st to April 18th, 1802, is given in *Hygëia*, vol. ii., 1808; Essay vi., p. 96.

[6] On March 3rd, 1800, Beddoes issued a circular announcing a series of "Lectures on the Laws of Animal Nature, and of the Means of preserving

As a remedy in phthisis Beddoes had no faith in the Hotwell water. In his *Essay on Consumption* he says: "As to the efficacy of this or that spring, in any period of consumption, there is nothing in the pagan and popish legends concerning consecrated fountains and holy water, more absurd than such a persuasion."[1] But accepting the views of Dr. Nathan Drake[2] and of Dr. Richard Fowler[3] that digitalis, "by its almost uniform effect in rendering the action of the arteries more slow than natural, at the same time that it seems to excite the absorbents,"[4] and believing that many cases of phthisis had been considerably relieved by its administration, he hoped that "consumption will henceforward as regularly be cured by the fox-glove, as ague by peruvian bark."[5]

Fashions change. But rich and educated persons are ever ready to place themselves under extraordinary and disagreeable conditions in deference to the medical theories of the time. Although Beddoes had practically given up his treatment by factitious airs, he was still strongly of opinion that air modified in some form was essential for the successful treatment of phthisis, and it is interesting to note some of the ways in which

the System from Injury upon the most Important Occasions of Life' (*The Medical and Physical Journal*, 1800, iii. 487). In 1803 he put forth "The Rules of the extended Medical Institution for the Benefit of the Sick and Drooping Poor, with an Explanation of its peculiar Design, and various necessary Instructions." (For much interesting information concerning this see *The Medical and Physical Journal*, 1803, x. 571–3, and Stock's *Life of Beddoes*, pp. 318–30.)

[1] *Loc. cit.*

[2] Drake was a man of literary tastes. His *Shakespeare and his Times* is a well-known and much-valued book.

[3] *Contributions to Physical and Medical Knowledge, principally from the West of England*, 1799, pp. 473–520. The profits of this work for the first two years were to be for the benefit of the Pneumatic Institution, and afterwards to "be given to some infirmary within the district" (*Annals of Medicine, 1798*, iii. 464). It was printed by Biggs and Cottle, who also printed other work of Beddoes. Joseph Cottle, who was in business at the corner of High Street and Corn Street, and who so substantially aided Coleridge, Southey, and Wordsworth, was himself a poet of considerable merit. Many of the passages in his *Alfred* are good. Byron made a virulent and an unjustifiable attack upon him in *English Bards and Scotch Reviewers*, but calls him Amos, which was the name of his brother, who also wrote verse. The same mistake is made in *The Anti-Jacobin*. (See Pryce's *History of Bristol*, 1861, p. 547.)

[4] *Essay on Consumption*, 1799, p. 269. [5] P. 270.

this idea was carried out in Clifton under his supervision. Having read that "a lady, in the last stage of consumption, had her distressing symptoms all removed, from living the winter in a room with four cows," and knowing that "in many countries *cow's breath* is a traditionary remedy," Beddoes in 1796[1] was preparing to give his patients the advantages to be obtained from these proceedings. Starting from the prevailing persuasion that a "residence in hotter countries is beneficial to British invalids," he convinced himself that the cow-house would provide "an atmosphere permanently modified, of a regular temperature," supplied by "the gasses, given out by the fermenting mass of vegetable and animal substances."[2] Obviously the proceeding involved difficulties. "A gentleman in the last stage of consumption, mortified by the refusal of the master of a lodging house to admit cows into it, quitted Clifton."[3] The case of Mrs. Finch, daughter of Dr. Joseph Priestley, is recorded at great length. In 1799 "a stable adjoining to one of the houses in Gloucester Row, twenty feet long, fourteen wide, and nine high, with a small recess, was engaged; and a space sufficient to contain a moderate bed, with a little room to place a table and move about, was partitioned off; and this part was raised, by coarse boards, a few inches above the ground of the stable. Two cows were first placed in the other part of the building, for a few days before Mrs. Finch took up her abode in it"[4] about the end of September. Upon her entry her case was looked upon as hopeless. On October 8th she wrote that it was "a much more comfortable abode than she had formed an idea of. So different have been her feelings from those of the last six months, that she should reluctantly change her apartment for the *night*, however she might wish a *cleaner* and more *chearful* one for the *day*."[5] She lived there for about six months, with the exception of a few days. In the summer of 1800 she felt perfectly well. During the following winter she "confined herself to an apartment,

[1] *Considerations on Factitious Airs*, Part IV., 1796, pp. 121–2.

[2] *Observations on the Medical and Domestic Management of the Consumptive*, 1801, pp. 21, 22, 68.

[3] P. 24. [4] P. 46. [5] P. 49.

artificially heated, and continued to enjoy entire freedom from pulmonary complaints till March, 1801, when she got a violent catarrh." She said that till then "I had passed the winter with great credit to the cow-house, the *air* of which I still prefer to my warm room, though it is of a good size, and lies to the sun."[1] Several other cases are recorded of patients living with cows. The results varied, and Beddoes recommended a modification of some of the conditions. In some instances he excluded the cows, and placed the patient in a stable with two stalls, one of which "was filled very full of the materials used by gardeners for hot-beds; in the other the patient's bed was placed."[2] And later he said that "vessels containing the fermentable substances could easily be introduced into a warm apartment; the former as easily be regulated by covers, and the vessels removed entirely, the moment the exhalations appeared to disagree."[3]

That modern experimenters in the treatment of phthisis have no monopoly of eccentricity in this particular direction is amply shown by the practice of Beddoes. They have his zeal, and, using almost his very words, they are determined, as he was, to fight disease with any weapons that seem to offer the least chance of victory. And like him they are living up to the psychological attitude of the moment. It will be interesting to know what the chronicler of the year 2002 will say about them. Future investigators will find in the work of their predecessors plenty of warning and of example; but as the prophylaxis and treatment of phthisis have not yet nearly

[1] P. 58. [2] P. 69.

[3] Pp. 86-7. The exertions of Beddoes in this direction drew forth an ardent eulogy from a writer in *The Medical and Physical Journal* (1802, vii. 8), who praised him for his efforts in protesting against "the unavailing slavery of routine practice, and for having taught that the province of medicine must be a great and generous science, never a contending trade." Southey, writing in 1799, said: "The faculty dislike Beddoes, because he is more able, and more successful, and more celebrated, than themselves, and because he labours to reconcile the art of healing with common sense, instead of all the parade of mystery with which it is usually enveloped. Beddoes is a candid man, trusting more to facts than reasonings: I understand him when he talks to me, and, in case of illness, should rather trust myself to his experiments than be killed off *secundem artem*, and in the ordinary course of practice" (*Life and Correspondence of Robert Southey*, 1850, vol. ii., pp. 23-4).

reached finality, coming generations should be grateful for all previous independent observations. The world is indebted to every honest and sincere worker, even if a great part of the work has to be superseded.

"The heights by great men reached and kept
Were not attained by sudden flight,
But they, while their companions slept,
Were toiling upward in the night.

* * * *

Nor deem the irrevocable Past
As wholly wasted, wholly vain,
If, rising on its wrecks, at last
To something nobler we attain."[1]

Dangers to be avoided in each age are generalising on insufficient data and thinking that the last word is being said. Scientific knowledge seems to be no guarantee against erratic developments; for not only are the observers of to-day in the front rank, but Beddoes also was a man of exceptional attainments, and he "spared neither his faculties nor his credit in behalf of the sick." His writings, enforced with much eloquence, combined with satire and also the saving grace of humour, show that he was a man of rare insight into human nature, with its marvellous alternations of health and disease,[2] but he had in a marked degree the defects of his qualities. His enthusiasm[3] in his work often led him to attribute virtues to

[1] Longfellow, "The Ladder of St. Augustine.'

[2] The application of external cold in the treatment of disease had his earnest support. "The public might advantageously forego a considerable proportion of the rare exotic articles in any existing pharmacopœia for the sake of so vulgar a domestic production as ice. When men are better instructed in the laws of their own nature, they will be less eager about ice as a luxury than as a powerful instrument of health. Public ice-houses will be constructed in our cities, towns, and villages" (*Observations on the Medical and Domestic Management of the Consumptive*, 1801, pp. 16–7). He considered it "practicable to acquire measures of irritability and sensibility," and had an instrument "so constructed, as when applied to some artery, to shew the force of its stroke" (*Op. cit.*, p. 197).

[3] Attention should be given to his collective investigation on Influenza, the record of which covers about 130 pages of *The Medical and Physical Journal*, 1803; but his promised Commentary on the returns, which numbered over 120 from various districts, did not appear. There had been a good deal of influenza in Bristol in the early part of 1803, an account of which Nott had published (see *Ibid*, 1803, x. 80–2).

remedies which further observation showed they did not possess. Beddoes was busy with his investigations and with his pen up to the time of his death, which took place in 1808, at 3 Rodney Place, where he had been in practice for some years. He was only 48.[1]

The literary requirements of the fashionable throng that frequented the Hotwells were not great, but they were not altogether overlooked. The 5s. subscription which enabled the visitor to walk in the rooms and gardens also included the privilege of reading the newspapers which were supplied. In addition there was a circulating library kept by Mrs. Ann Yearsley, who, born about 1756, was in early life a milkwoman, but who left that useful but humble occupation and became a minor poet. Some of her verse attracted the favourable notice of Hannah More, by whose aid she published a volume of poems, and with the proceeds of this she started the library. Other books, including a play and a novel, followed later. A portrait which is in the possession of the Bristol Museum and Library shows Mrs. Ann Yearsley as the possessor of considerable personal attractions. She died in 1806.

If it is true that Jack Cade considered that the man who had erected a grammar school had most traitorously corrupted the youth of the realm, that any one who caused printing to be used or a paper mill to be built had committed a grave offence, and that those were most worthy to live who could not read, he had a like-minded successor in one who would have disclaimed any relationship to him. For the same spirit breathes in Sir Anthony Absolute, who declared that "a circulating library is as an evergreen tree of diabolical knowledge." If there is any truth in this dictum, the dwellers in Clifton about this time must have been in a parlous state, for there were at least two institutions of the kind. The clients of these could also make their purchases from "an extensive assortment of

[1] Those who wish to see an impartial and candid survey of the life and work of Beddoes should read the obituary notice which appeared in *The Medical and Physical Journal* (1809, xxi. 183-92). Coleridge, referring to the death of Beddoes, says in a letter to Thomas Poole, Feb. 3, 1809: "Poor Beddoes! he was good and beneficent to all men, but to me he was, moreover, affectionate and loving" (*Letters of Samuel Taylor Coleridge*, 1895, vol. ii., p. 544).

foreign and English perfumery, jewellery, hardwares, toys and stationery."

The Bristol Library Society, which had been formed in 1772 on subscription lines and which was housed in the City Library[1] in King Street, had among its members at the end of the century Southey and Coleridge and Humphrey Davy. The Registers which are still in existence give the names of books taken out by them.[2]

But the glories of the Hotwells were now about to vanish. Soon after 1790, when new arrangements were made between the Merchants' Society and the tenant, necessitating on the latter's part a considerable charge for drinking the water, the pleasure-seekers departed to other places, and the Hotwells was the resort of invalids only, and although the praises of the site were sounded in 1800 by Dr. William Saunders in his book on mineral waters,[3] and endorsed by Dr. William Nisbet in 1804 in *A Medical Guide for the Invalid*, it was all of no avail. Saunders pointed out that "Bristol water, besides being employed medicinally at the spring head, which is in fact but a small part of its consumption, is used largely at the table at the Hotwells, and for all domestic purposes. Its softness, or freedom from earthy salts, is almost proverbially known; and from its excellent quality of keeping untainted for a great length of time in hot climates, it forms a most valuable water for long voyages, and is accordingly exported in great quantities to distant parts."[4] He showed that supposing half a pint of the water to be taken four times in the day, "the patient will have

[1] Only men could use the library. Maria Edgeworth (*op. cit.*, vol. i., p. 18), writing on December 29th, 1791, says that her "father has got a *transfer* of a ticket for the Bristol library, which is an extremely fine one; and what makes it appear ten times finer is, that it is very difficult for strangers to get into. From thence he can get almost any book for us he pleases, except a few of the most scarce, which are by the laws of the library immovable. No ladies go to the library, but Mr. Johns, the librarian, is very civil, and my mother went to his rooms and saw the beautiful prints in Boydell's Shakespear."

[2] See *Chambers's Journal*, 1 Feb., 1890, and *The Library*, vol. v., 1893.

[3] *A Treatise on the Chemical History and Medical Powers of some of the most celebrated Mineral Waters.*

[4] Second Edition, 1805, p. 115.

added to his daily ingesta about five grains and a half of purgative salts; six grains and a half of calcareous salts; and about a quarter of a pint in bulk of carbonic acid; the whole dissolved in a quart of water of the temperature of 74°."[1] By Saunders's time a view somewhat saner than that of most of its earlier eulogists[2] was being taken. He says: "It is not easy to determine how much may be owing to the favourable situation and mild temperate climate which Bristol enjoys; but it cannot be doubted that the Hotwell water, though by no means a cure for consumption, alleviates some of the most harassing symptoms in this formidable disease. We are not yet fully acquainted with the medical virtues which we may expect from the union of a small quantity of carbonic acid with water; but from comparing the effects resulting from this gaseous acid when in a larger dose, and giving very sensible properties to the water with which it is combined, there appears to be some reason for attributing to this substance, a part at least of the virtues of Bristol water."[3] Nisbet endorses the views of his "respectable friend, Dr. Saunders," and corroborates his opinion that "in those affections of the alimentary canal which arise from a residence in a warm climate, whether attended with bilious symptoms or not, the waters are eminently useful. The same advantage they display in diarrhœa and slight attacks of dysentery. In diabetes, if not curing, they are at least a serviceable palliative, and give effect to the powers of other remedies. In consumption, there are some authenticated cases of cure where the disease was in its commencement, and the constitution was [not] broken down; but where it has made progress, and hectic symptoms are far advanced, little is to be expected from this mineral, or any other remedy. But even in these deplorable circumstances it will have some palliative influence over the hectic symptoms, and tend to allay the thirst, feverish heat, and other symptoms of increased temperature."[4] In words taken direct from "*Phillips's Guide*,"[5] Nisbet recom-

[1] Pp. 122-3.

[2] Fothergill was notably one whose views were fairly rational.

[3] Pp. 124-5. [4] P. 46.

[5] *A Guide to all the Watering and Sea-Bathing Places*. By the Editor of the Picture of London. Printed for Richard Phillips. [1803.]

mends invalids of every description to resort to Clifton, which is said to be a "beautiful village, which for the purity and salubrity of its air, has been denominated the Montpelier of England, from its elevated situation furnishes the most charming views over the western part of Bristol, and of the Avon for a considerable way, with its moving scene of ships. It stands on a hill, which rises by a gradual ascent from the river, and is, in a great measure, covered with villas, and elegant piles of buildings. The principal situations for those invalids who prefer this airy abode, are Sun [? Sion] -row and Gloucester-place, on Clifton Down; the Prince of Wales's Crescent; The Mall, which may be regarded as the principal beauty of Clifton; Rodney-place; Boyce's-buildings; York-buildings, etc., etc."[1]

In 1816, according to Carrick, "many houses, and even whole rows, are unoccupied." Notwithstanding the strong protests of Carrick and others against the evil policy of sending patients in advanced phthisis to the Hotwells, the practice of doing so became more common, with of course as a result, a large death-rate, which gradually made the place unpopular. The condition of things is thus pictured by Carrick:—"From the day that the Hotwell became practically a fountain sealed to the lips of every one but the actually moribund, the fame of the place began rapidly to decline. None who drank of the Lethean waters were thenceforth found to recover; because none did drink of them but such as were past recovery. It was now one uniform black list of disappointment and death; and in the course of a very few years it became all over the kingdom a source of horror and despair, instead of hope and confidence, to be ordered to the Hotwells, from whose awful bourne no traveller now returned."[2]

In spite of better facilities of approach and the building of an improved Pump-Room,[3] with the provision of baths, the place became practically deserted. The decay of the Hotwells as a

[1] P. 264.

[2] Extract from letter by Carrick to the Merchants' Society in 1816, "first published in the *Bristol Times* of October 18, 1862."—Mr. Latimer's *The Annals of Bristol in the Nineteenth Century*, 1887, p. 72.

[3] River improvements necessitated the demolition of the New Pump-Room in 1867.

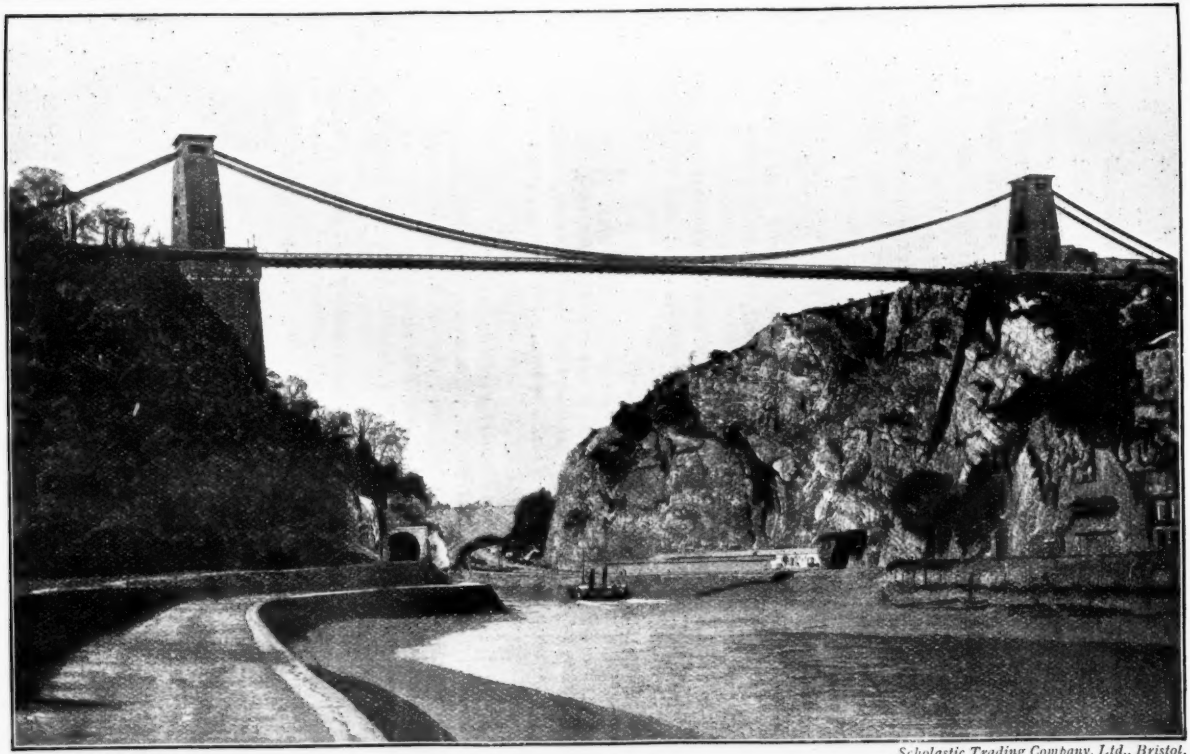
fashionable resort seems to date from the Merchants' Society's new lease in 1790, and the exorbitant charges which were then the rule for all visitors' requirements; but its end no doubt was hastened, as Mr. Latimer points out, by the quieter condition of European politics which enabled persons to visit the continental spas in safety.

In this *Journal* for June, 1889, Dr. John Beddoe summarises the more recent views concerning the Hotwell water, in which "the chief constituent, the carbonate of lime, preponderates over the sulphate," thus varying the relation of those ingredients in the Bath water. Dr. Beddoe quotes Herapath's analysis of the Bristol water, which gave per gallon:

"Carbonate of lime	17.7 grains
Sulphate of lime	9.87 ,,
Chloride of sodium	5.89 ,,
Sulphate of soda	3.01 ,,
Chloride of magnesium	2.18 ,,
Nitrate of magnesia	2.91 ,,

with smaller quantities of carbonate of magnesia, and of iron, of bitumen, and of silica, and some impregnation of carbonic acid and of nitrogen gas. Mr. F. W. Stoddart found the same aggregate amount of solids as Herapath did, but with slight differences in proportion—rather more sulphuric acid, and less of nitric acid and chlorine; rather less lime, and more magnesia and silica." Owing to the large amount of quarrying that has been done at St. Vincent's Rocks ruining the place at which the water originally came forth, much doubt has been expressed about the site of the spring which attracted to the Hotwells its fashionable crowds; but Dr. Beddoe considers that the well has been recovered, and it is much to be desired that its old popularity should be revived.

A vigorous and well-meant effort to restore the glories connected with the Hotwell spring has within the last few years been made by the erection of the Clifton Spa, an institution replete with modern luxury, and thoroughly equipped with an elaborate system of baths. But even if persons do not require medical treatment, many of them might, for their holiday resort or permanent residence, do well



Marion & Co., Ltd., Photo. *Scholastic Trading Company, Ltd., Bristol.*

9.—*A Present-day view of part of the Hotwells.*

to choose Clifton, a place which can be recommended for the magnificent scenery of its immediate neighbourhood; for the rare interest attaching to so much that is left of an ancient city which has taken a large share in the national history; for the ever-varying incidents of a commercial seaport, and the facilities afforded for a variety of charming river and sea trips; for its interesting churches, of which there are a great number; for its many educational advantages; and for the attractions of the surrounding country.

BIBLIOGRAPHY OF THE HOTWELL WATER.

VENNER (T.). *The baths of Bathe. . . . Whereunto is also annexed a censure concerning the water of Saint Vincents Rocks, neere Bristoll*, 1628; 2nd ed., 1638; 3rd ed., 1650.

JORDEN (E.). *A discourse of naturall bathes and minerall waters, especially of our bathes at Bathe in Sommersetshire*, 1631; 2nd ed., 1632; 3rd ed., 1633.

JOHNSON (T.). *Mercurius Botanicus*, 1634.

FULLER (T.). *The history of the Worthies of England*, 1662.

CLAROMONTIUS (C.). *De aere, locis, et aquis terræ Angliæ*, 1672.

GUIDOTT (T.). *A discourse of Bathe, and the hot waters there. Also some enquiries into the nature of the water of St. Vincent's Rock, near Bristol*, 1676; 2nd ed., 1725.

GUIDOTT (T.). *De thermis Britannicis tractatus*, 1691.

MAPLET (J.). *Cl. viri J. Maplet. . . . epistolarum medicarum specimen de thermarum Bathonensium effectis . . . Edente T. Guidott*, 1694.

UNDERHILL (J.). *Thermologia Bristoliensis*, 1703.

ALLEN (B.). *The natural history of the mineral waters of Great-Britain*, 1711.

ATKYNS (Sir R.). *The ancient and present state of Glocestershire*, 1712; 2nd ed., 1768.

GOLDWIN (W.) *A poetical description of Bristol*, 1712; 2nd and 3rd eds., 1751.

WYNTER (J.). *Cyclus metasyncriticus, or, an essay on chronical diseases, and on the medicinal waters of Bath and Bristol*, 1725; 2nd ed., 1728.

KEIR (P.). *Enquiry into the nature and virtues of the medicinal waters of Bristol, in chronical distempers*, 1739.

SHEBBEARE (J.). *A new analysis of the Bristol waters*, 1740.

RANDOLPH (G.). *An enquiry into the medicinal virtues of Bristol-water*, 1745; 1750.

LINDEN (D. W.). *A treatise on the origin, nature, and virtues, of chalybeat waters and natural hot-baths*, 1748; 2nd ed., 1755; 3rd ed., 1759.

WHITEHEAD (W.). "An hymn to the Nymph of Bristol spring," 1751, (*Plays and Poems*, 1774, vol. ii., pp. 105-25.)

OWEN (E.). *Observations on the earths, rocks, stones and minerals for some miles about Bristol*, 1754.

LUCAS (C.) *An essay on waters*, 1756.

RUTTY (J.). *A methodical synopsis of mineral waters*, 1757.

SUTHERLAND (A.). *The nature and qualities of Bristol-water with reflections on Bath-waters*, 1758; 1788.

RUTTY (J.). *Argument of sulphur or no sulphur in waters discussed, with a comparison of the waters of Aix-la-Chapelle, Bath, and Bristol*, 1762.

SUTHERLAND (A.). *Attempts to revive antient medical doctrines, of waters, of Bath and Bristol waters in particular*, 1763.

SUTHERLAND (A.). *An attempt to ascertain the virtues of Bath and Bristol waters*, 1764.

LUCAS (C.). *Cursory remarks on Sutherland's method of investigating the Bath and Bristol Waters*, [1764].

LINDEN (D. W.). *Reply to Dr. Lucas's remarks on Sutherland's treatise on Bath and Bristol waters*, 1765.

FOTHERGILL (J.). "The use of Bristol water in consumption." *Medical Observations and Inquiries*, 1776, v. 355-9.

JONES (H.). *Clifton: a poem*, 1767, pp. 8-13. (Date printed on title-page, 1667, is an error.); 2nd ed., 1773.

ELLIOT (J.). *An account of the nature and medicinal virtues of the principal mineral waters of Great Britain and Ireland*, 1781; 2nd ed., 1789.

SHIERCLIFF (E.). *Bristol and Hotwell Guide*, 1789.

NOTT (J.). *Of the Hotwell waters, near Bristol*, 1793; 2nd ed. 1797; 3rd ed. [after 1802].

[HEATH (G.)]. *Matthews's New History of Bristol*, 1794.

An impartial inqury into the nature and qualities of the new saline mineral spa water, at the Tennis court house, Hotwells Road, Bristol. By a Gentleman of the Faculty. [N.D.: after 1793.]

CARRICK (A.). *Dissertation on the chemical and medical properties of the Bristol Hotwell water*, 1797.

SAUNDERS (W.). *A treatise on the chemical history and medical powers of some of the most celebrated mineral waters*, 1800; 2nd ed., 1805.

MANBY (G. W.). *Fugitive sketches of the history & natural beauties of Clifton, Hotwells and vicinity*, [1802].

NISBET (W.). *A medical guide for the invalid*, 1804.

LATIMER (J.). *The annals of Bristol in the seventeenth, eighteenth, and nineteenth centuries*, 3 vols., 1887-1900.

BEDDOE (J.) "Clifton." *Bristol Medico-Chirurgical Journal*, 1889, vii. 114-22.

NOTES ON THE ILLUSTRATIONS.

8 (facing p. 193). This shows the pump-room built in 1822 and taken down in 1867. It was "sketched from Nature by T. Hulley" and "drawn on stone by H. Jones, R.I.A."

9 (p. 205). This gives a view of a portion of the Hotwells as it appears to-day. It is from a photograph taken by Messrs. Marion and Co. for *Picturesque Bristol and Clifton*, published by the Scholastic Trading Co., Bristol, and to their kindness I am indebted for permission to use it. The view shows a portion of the Colonnade which was erected about 1760. (See illustration on p. 23.) The bridge was finished in 1864. Its height from low water is 280 feet, and the span is 702 feet.

Mr. F. W. Stoddart, the Public Analyst of Bristol, has very kindly supplied me with these Notes on some of the Analyses of the Hotwell Water which are referred to in the foregoing paper:—

The earliest account by Venner notes the presence of sulphur (*i.e.* sulphuretted hydrogen) and nitre, and further that it was likely to lose the former on keeping.

Guidott's analysis excluded volatile matters; but that the water to his knowledge contained sulphuretted hydrogen appears from his opinion that "a nitro-sulphureous salt" was present. The mode of identification of the carbonate of lime by igniting the insoluble residue to the oxide, slaking and combining with sulphur, and finally decomposing the latter with an acid, is ingenious and correct. The method of analysis at this date consisted practically of separation by solvents, just as the proximate analysis of organic substance does at the present time.

It is noticeable that from Guidott's time, and after the erection of a pump-room, no mention is made of "sulphur." Was the true spring lost at this time? Allen's account is very obscure and hardly recognisable as referring to this water, which has by every other authority been found to contain much carbonate of lime and other salts, if not altogether deserving of Strother's grandiose description.

Sutherland's analysis is also much opposed to ancient and modern investigation. It is difficult to understand what is meant by "volatile vitriolic acid." Sulphur dioxide would seem to fit in best with the description, but would probably have been identified more distinctly.

Carrick's analysis, the first in modern form, represents the water as being of much the same character as at present, though there is more combined sulphuric acid.

Saunders's remarks, contradictory as they are, are an illustration of the curious fact that certain hard waters do undoubtedly get the reputation of being soft. In modern times the water has certainly maintained with great uniformity the composition given by Dr. Herapath, and has probably remained constant in this respect since the end of the seventeenth century.

A CASE OF ASCITES DUE TO THROMBOSIS OF THE HEPATIC VEINS.

BY

THEODORE FISHER, M.D., M.R.C.P.,

Physician to Out-Patients to the Bristol Hospital for Sick Children; Pathologist to the Bristol Royal Infirmary.

RECORDED occurrences of ascites due to thrombosis of the hepatic veins do not appear to be common, and consequently the following case seems to be of sufficient interest to be worthy of publication:—

A girl, aged three years, was seen by me at the Bristol Children's Hospital on April 15th, 1901. The abdomen was much distended, and several enlarged veins ran upwards from the level of the umbilicus to the costal margin, where they formed a network over the front of the chest, and gradually disappeared. The distension of the abdomen was obviously due to the presence of fluid. The abdomen was nearly everywhere dull; only here and there resonance over some coil being obtained. By "bobbing" the liver could be felt, its lower margin extending to four fingers' breadth below the costal margin. In the right axilla the liver dulness extended up to the fifth intercostal space. The spleen could not be felt. Slight œdema of the thighs and legs was present, but the face was not puffy, and there was no swelling of the arms or legs. The girl was pale, but did not look very ill. Nothing abnormal was discovered in the physical signs of the lungs or heart. The mother said the child had been well up till about five months before, when she was attacked with whooping cough, which lasted three or four months. The swelling of the abdomen had been noticed about one month. There had been no diarrhœa: the bowels had generally been somewhat constipated. The child passed little urine, but nothing had been noticed abnormal in its colour. There had been eight other children in the family: two had died—one from bronchitis after measles, the other as a baby. The father had died six months before of Bright's disease. Cirrhosis of the liver was thought of as a possible cause for the enlargement of the liver and ascites; but there was nothing about the child to suggest syphilis, and the mother denied that she had been given alcoholic drinks. The mother would not consent to leave the child at the hospital, but three weeks later she took her to the Bristol Royal Infirmary, where she was admitted under the care of Dr. Shingleton Smith. On May 7th,

the day after admission, the abdomen was tapped, and 65 ounces of fluid drawn off. The child, however, did not improve; the abdomen refilled; she suffered from two severe attacks of epistaxis. Diarrhœa set in, and during the last fortnight of life there was moderate pyrexia. She died June 6th.

At the autopsy the body was much emaciated. The skin was of yellowish tint. The peritoneal cavity contained about 60 ounces of slightly reddish-brown coloured fluid. The liver was enlarged; it weighed 23 ounces. The anterior third of the upper surface was slightly granular, but elsewhere smooth. On section it was somewhat bile-stained, and extremely "nutmegged." On closer inspection the larger divisions of the hepatic veins were seen to be thrombosed. The contained clot was pale, and the walls of the veins thickened. Both hepatic veins, where they should have opened into the vena cava, were found to be completely blocked. A small fibroid nodule marked the site of the entrance of one vein, and a small depression the size of a pin's head that of the other. A vein, the size of an ordinary pen-holder, ran from the left branch of the portal vein downwards in the falciform ligament to the umbilicus. The stomach contained several ounces of dark, semi-digested blood, but no local cause, not even a small hemorrhagic erosion, could be found to account for it. The œsophageal veins were little if at all dilated. The spleen was not enlarged; it weighed one ounce. There was nothing noteworthy in any of the other organs. Cultures taken from the liver and thrombi shewed the presence of streptococci, but they probably were merely the evidence of a terminal infection and explained the pyrexia which had been present during the last two weeks of life. Sections of the liver shewed the hepatic veins to be completely obliterated where they joined the inferior vena cava. Everywhere the walls of the main divisions of the veins were much thickened, and the clot they contained was in

Reproduction of a rough sketch of the child's abdomen made on the day she was first seen. Coursing upwards, above the level of the umbilicus, are several enlarged veins. The shaded area marks the portion of the liver as felt through the abdominal wall.

various stages of organisation. In some of them the liver-cells were largely replaced by dilated capillaries full of blood-cells, but in others pigmentation of the liver-cells and the presence of fat were the chief features. Here and there the interstitial tissue surrounding the medium-sized divisions of the portal vein was increased, but the cirrhosis was slight in degree.

As has been already mentioned, thrombosis of the hepatic veins does not appear to be common, yet possibly it may be sometimes overlooked. I have met with two other comparatively unimportant examples. In one the thrombosis was associated with septic thrombosis of the portal vein, in the other the thrombosis of the hepatic veins occurred as a complication of broncho-pneumonia in a child. In the second case there was no ascites, but the liver was extremely congested and in places hepatic lobules had been completely destroyed by the pressure of the dilated venous capillaries.

Cases of thrombosis of the hepatic veins similar to the example reported above have been recorded by Gee,[1] Churton,[2] Rolleston,[3] Lazarus-Barlow,[4] and Kelynack.[5] Gee refers also to a case recorded by Von Recklinghausen, and Kelynack to one by Frerichs. A case probably of similar nature is also recorded by Willcocks.[6] In this case thrombosis of the vena cava was present from "the lower border of the liver to the diaphragm." The hepatic veins are not mentioned, but it is possible that the thrombosis may have originated in them. In the case of Frerichs, in addition to the thrombosis of the hepatic veins, the orifices of these veins were completely blocked. A nodule marked the site of the opening of one vein, and the other terminated "in a blind extremity." In Gee's case the orifices of the veins were represented by "shallow dimples." In the case of Churton the orifices were "very narrow," while in that of Kelynack the opening of only one vein could be found. In my own case, like that of Frerichs, a nodule marked the site of the opening of one vein, a shallow depression that of the other. Cirrhosis of the liver has been present in the

[1] *St. Barth. Hosp. Rep.*, 1871, vii. 144.
[2] *Tr. Path. Soc. Lond.*, 1899, L. 145. [3] *Ibid.*, 148.
[4] *Ibid.*, 146. [5] *Med. Press Circ.*, 1897, [cxiv.] 633.
[6] *Tr. Path. Soc. Lond.*, 1896, xlvii. 67.

majority of cases, but in some does not appear to have been very well-marked. It was absent in Rolleston's case. The size of the spleen is referred to in only a few cases. It was of normal size in the case of Gee and in my own case. In the case of Willcox also, where thrombosis of the vena cava behind the liver must have blocked the orifices of the hepatic veins, the spleen was "not enlarged." In Kelynack's case, however, the spleen weighed 13 ounces.

Clinically, a striking feature in some of the cases has been the prominence of superficial abdominal veins. The abdomen was covered with "a plexus of distended veins" in the case of Lazarus-Barlow, and similar enlargement was present in the cases of Churton and Willcox. Distension of these veins was also present in my own case. In only one case, however, does there appear to be a reference to a vein running down in the umbilical ligament from the left branch of the portal vein, such as was present in the above case. The case in which a similar vein is mentioned is that of Gee. Bleeding into the alimentary tract, indicated by hematemesis and melœna or the discovery of blood in the stomach after death, was present in the cases of Rolleston, Lazarus-Barlow, and in my own. Ascites was present in all. It appears to have commenced, in cases where the time of onset is mentioned, from six weeks to four months before death.

Some writers appear to have thought that the thrombosis of these veins is probably due to syphilis. If we consider the thrombosis to have been secondary to cicatricial contraction of the orifices of the hepatic veins, we may think it possible also that syphilitic disease of the terminations of these veins was the cause of the contraction. The contraction, however, may have been secondary to the thrombosis. Thickening of the walls of veins, met with in association with thrombosis, is probably very often a sequence, not the cause, of the *ante-mortem* clotting. The frequency with which micro-organisms are found in thrombi suggests that most cases of thrombosis are probably due to an infection of the blood. The hepatic veins, however, are probably veins in which one would not expect infective thrombosis to arise. Possibly the

clotting may be an indirect, rather than the direct, result of infection. Toxins produced in the liver, as the result of successful efforts in destroying some forms of micro-organisms in the portal circulation, may be the cause of the thrombosis.

In conclusion, I should wish to express my thanks to Dr. Shingleton Smith, under whose care the child was in the Bristol Royal Infirmary, for allowing me to publish the case.

PARALYSIS OF THE ACCOMMODATION—AN *A POSTERIORI* VIEW OF DIPHTHERIA.[1]

BY

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PARALYSIS of the accommodation is a condition often seen by ophthalmic surgeons following attacks of throat disease of so slight a character that the anginal symptoms have been almost, or, it may have been, quite overlooked. If all these cases are considered diphtheritic, it is probable that more cases of diphtheria are treated by the mothers of England (in consultation with the local druggist) than are treated by the medical profession. The diagnosis of diphtheria has always presented great difficulties, and these difficulties have not been overcome, as was hoped, by the discovery of the Klebs-Loeffler bacillus, for pathologists tell us that it may be present when there is no diphtheria, and that it may be apparently absent when (clinically) there is diphtheria. If we ignore the Klebs-Loeffler bacillus and base our diagnosis on the nerve degeneration, we are possibly in rather smoother water; but, unfortunately, the nerve symptoms are not usually early ones, and it is at the beginning of the attack that the parent or the schoolmaster expects us to give a decisive answer to the question—"Is it a case of diphtheria?" From the ophthalmic surgeon's point of

[1] Read at a Meeting of the Bath and Bristol Branch of the British Medical Association, April 30th, 1902.

view the diagnosis is not difficult if we accept paralysis of the accommodation following ulceration of the throat as proof positive that the disease was diphtheria. Dr. Sidney Martin[1] insists that "the presence of nerve degeneration is the pathological test of diphtheria as a disease. There are other membranous inflammations of the throat due to micro-organisms," he says, "but diphtheria is the only one which leads to nerve degeneration." But paralysis of the accommodation is not universally accepted as conclusive evidence that a preceding anginal attack was diphtheritic. Mr. Jonathan Hutchinson[2] says: "I have seen some cases of this paralysis of accommodation after very slight attacks of diphtheria, and a few in cases of quinsy or pharyngeal abscess where presumably no real diphtheritis had been present." In a foot-note he adds: "Dr. Mansel Sympson in his interesting account of diphtheria as he observed it in Dr. Gee's wards in St. Bartholomew's has the following important observation which fits well with the opinions I have expressed: 'In epidemics, catarrhal diphtheria may occur wherein there is no formation of false membrane whatever. These cases may communicate diphtheria to others and may be followed by paralysis.'" For clinical purposes I think we shall not go far wrong if we consider all cases of anginal inflammation followed by paresis of the accommodation as diphtheria.

From the brief notes of cases of paralysis of the accomodation which I append to this communication, it would seem that slight throat affections are just as liable to be followed by paralysis as severe ones.

That diphtheria is often overlooked is hardly to be wondered at when we consider that so orthodox a symptom as membrane may be absent. Dr. Mansel Sympson, quoted above, is not more strong on this point than Dr. Cobbett and Dr. G. C. Phillips[3]: "During the last few years," they tell us, "the diagnosis of diphtheria has come to be founded more and more on the presence of the Klebs-Loeffler bacillus. So greatly have recent discoveries modified our notions of

[1] *Brit. M. J.*, 1895, ii. 461. [2] *Arch. Surg.*, 1893, iv. 210.
[3] *J. Path. & Bacteriol.*, 1897, iv. 193.

this disease, that we no longer regard the existence of a membrane as a necessary feature, nor indeed as conclusive evidence when present; for we have learned, on the one hand, that diphtheria may attack the throat without causing any membrane, and, on the other, that well-developed membrane may be present in throats that are not affected by that disease, not upon the tonsils only, but also upon the uvula, soft palate, and other parts."

If, for clinical purposes, we consider all cases followed by paralysis of the accommodation as diphtheritic, then the practitioner may have many difficulties in the diagnosis, whilst the ophthalmic surgeon has very few. From his point of view it may be interesting to look backwards and try to find out how often the disease is recognized, and how often it is of so mild a type that the doctor has not been summoned to attend the case. It is so much easier to make a retrospective diagnosis from the vantage-point of an *a posteriori* position : to prophecy when we know.

The accompanying list of thirty-three cases is the last consecutive series that I have seen in hospital practice. The notes are contracted as much as possible, as the point I wish to draw attention to is the frequency of diphtheria being unrecognised.

In these thirty-three cases it will be seen that in only fourteen (42 per cent.) was diphtheria diagnosed: that is, in 58 per cent. it was unrecognised. Fourteen patients were not attended by a doctor at all (52 per cent.), whilst five cases (15 per cent.) were seen by medical men, but were not considered to be diphtheritic. I do not think that the medical profession can be blamed for not calling these five cases diphtheria, for there was no epidemic at the time, and very probably they either were not diphtheria at all, or, if so, of so mild a type that the most careful observer would have doubted its presence. If an examination for the Klebs-Loeffler bacillus had been made and not found, almost certainly they would not have been considered diphtheria; and many of the cases occurred before the value of culture-tests was generally recognised.

No.	Name.	Sex.	Age.	Date.	History.
1	G. S.	F.		Jan. 23	Was at home at Christmas for a week with difficulty in swallowing and swelling of the left side of the throat. She was not seen by a medical man. Convalescent March 6th.
2	M. F.	F.	12	April 21	Had diphtheria in March, and was ill three weeks. Convalescent in June.
3	W. M.	M.	12	Mar. 31	Had a sore throat lately, but was not in bed with it, although he was very weak. He could not swallow solids. His mother poulticed his throat, and he did not have a doctor.
4	W. B.	F.	12	Aug. 19	Was a patient in the Statutory Hospital two months ago for diphtheria. It was a moderately severe attack, and she was ill a month.
5	T. N.	M.	12	Nov. 16	Sore throat a month ago. Convalescent January 6th.
6	C. C.	F.			Diphtheria a month ago.
7	F. M.	M.	12	Feb. 1	Diphtheria last July. Convalescent August 21st.
8	M. B.	F.	10	April 14	Ulcerated throat three weeks ago. In bed fourteen days, but was not attended by a doctor, and no other member of the family was attacked. She has a trace of albumin. Convalescent May 15th.
9	A. S.	F.	9	June 2	Had a cold and sore throat three weeks ago, and was in bed four days. A chemist gave her some medicine for the cold. The only other child in the family remained well.
10	R. P.	F.	8	Jan. 24	A sister of No. 9 had diphtheria in December, and a week later she herself was laid up with headache and "something the matter with the water." There was nothing the matter with her throat.
11	R. C.	F.	13	Feb 9	Was in bed in January with ulcerated sore throat, but only for two days. No diphtheria in the village, but four brothers and sisters had sore throats one after the other, and each was in bed for a day or two. One other child in the village had sore throat with affection of vision. Convalescent March 7th.
12	A. D.	F.	10	Sept. 10	Influenza five weeks ago, with bad throat; no one else in the house ill, and no doctor attended her. Trace of albumin. Convalescent November 14th.
13	W. O.	M.	9	Dec. 16	Was attended two months ago for diphtheria.
14	L. R.	F.	11	Feb. 14	Sore throat December 16th, for which she was attended by a medical man on December 28th, who said it was ulcerated. She was not confined to bed, and she got well in four or five days.
15	E. R.	F.	7	Feb. 12	Sister of last. Was taken with "mumps," December 12th, followed by diphtheria on December 31st, and sent to the Statutory Hospital, where she remained five weeks, and was treated by injections.

16	H. P.	M.	7	Mar. 14	Was attended by a doctor for sore throat in January. In bed four or five days.
17	D. C.	M.	7	Mar. 14	Had a sore throat and swelling of the neck from February 1st to February 14th. Was in bed ten days, but was not attended by a doctor.
18	A. W.	F.	10	July 4	Mumps three weeks ago. Was in bed two days; had ulcers of the throat at the same time, but was not attended by a doctor. Convalescent August 29th, but knee-jerks absent.
19	E. K.	F.	14	Nov. 12	An in-patient at the Royal United Hospital with diphtheria in October. Discharged November 2nd. (The case was considered a doubtful one at the hospital.) Convalescent December 8th.
20	G. W.	M.	7	Nov. 13	Sore throat five weeks ago; saw a doctor, who did not tell them it was catching. He has three sisters, but none of them were ill. He was in bed seven days.
21	J. S.	M.	8	Jan. 11	Sore throat on December 1st, and loss of vision since Christmas. Was in bed a week, and was attended by a doctor, but not for diphtheria. Two other boys in the house had it, but are well now.
22	M. S.	F.	9	Aug. 25	Diphtheria four weeks ago, and paralysis of the accommodation a fortnight ago.
23	C. B.	F.	29	Aug. 27	Diphtheria a month ago, and loss of vision three days. Was in bed fourteen days.
24	M. W.	F.	12	Nov. 2	Was in bed with diphtheria in September for seven days. Convalescent November 26th.
25	C. C.	M.	13	Dec. 20	Had an ulcer of the throat six weeks ago, but was not seen by a doctor during the first week of illness; went to see one the second week. Was not confined to bed at all. Convalescent December 29th.
26	W. L.	M.	6	Jan. 23	Diphtheria in November. No Klebs-Loeffler bacilli found now.
27	E. S.	F.	7	Jan. 31	Was in bed four days at Christmas with sore throat, but was not seen by a doctor. A brother had a sore throat a fortnight previous. No diphtheria in district.
28	A. W.	F.	8	Feb. 14	Was in bed for a week a fortnight ago in consequence of sore throat, epistaxis and headache.
29	D. H.	F.	10	Dec. 16	Sore throat a month ago; was in bed five days; the glands of the neck were enlarged and there was epistaxis. No doctor was called in. She had nine brothers and sisters in the house, but none of them were ill. Convalescent January 20th.
30	H. B.	F.	9	Feb. 18	Tonsillitis a few weeks ago; the doctor said it was not diphtheria. Convalescent April 20th.
31	S. C.	M.	10	Oct. 19.	Diphtheria in September. Paralysis of accommodation now. Followed in November by paresis of legs.
32	A. R.	F.	8	July 16	Diphtheria in June.
33	A. W.	F.	10	July 16	Diphtheria in June.

STEREOSCOPIC X-RAY REPRESENTATION,

WITH AN EXAMPLE.

BY

WILLIAM COTTON, M.A., M.D., D.P.H.

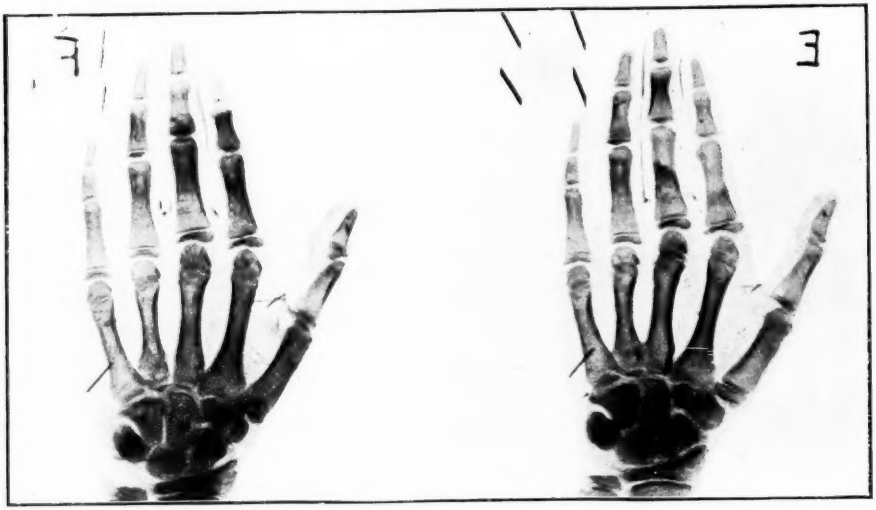
WHATEVER the reasons, the eye does not as a rule appreciate "relief" in the single radiogram. When, therefore, it is necessary to know the position of a foreign body relatively to the bones of the part in the direction of vision, some method of localisation must be resorted to, and undoubtedly the stereoscopic is the most elegant.

A girl aged 12 years, while washing a floor, ran part of a needle (the threaded eye-end, butt foremost as it turned out) into the ulnar aspect of the right hand. The thread was drawn on and snapped short. Generally needles in the soft parts may be left alone; in this case much inconvenience was caused when the patient tried to strike octaves on the piano. There was considerable swelling, and the position of the needle, whether in front of, or at the back of, the metacarpal bones, or otherwise, could not be made out.

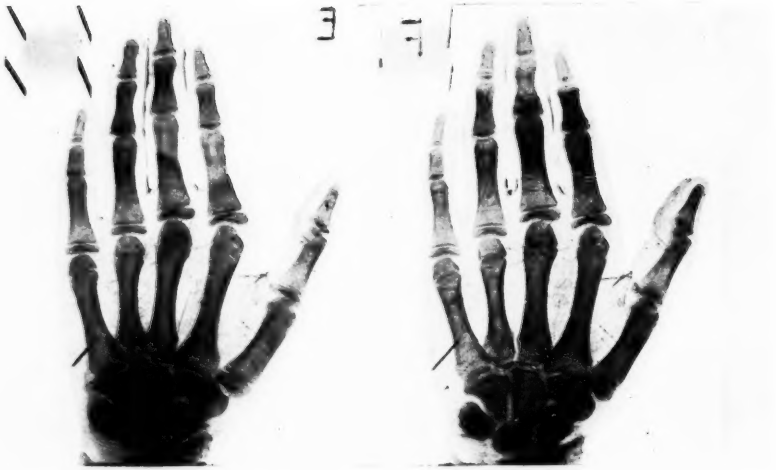
The palm of the hand was dusted with bismuth and the hand was twice radiographed, with the palm towards the sensitive film, on separate plates, by a focus tube in two successive positions across the long axis of the hand. These were $2\frac{3}{4}$ inches apart, and the anticathodal centre of emission in each case was 13 inches above the plane of the plate. A wooden cube, one inch in the side, with four metal strips along edges vertical to the plane of the plate, was simultaneously taken (in the same relation to the hand in each case) as a guide to the perspective.

Subsequently the needle was removed easily with the aid of a local anæsthetic, and the patient relieved.

According as we pair the two negatives or prints side by side in the stereoscope, we get *four* distinct and recognisable stereoscopic images. For present purposes the reduced radio-



No. III. *Correct perspective, wrong side of body.*



No. IV. *Incorrect perspective, correct side of body.*

grams in the refracting (or Brewster's instrument) only are considered; but the statements are applicable to the reflecting (or Wheatstone's) as well. These results merit tabulation.

Let the two positions of the focus tube in order be indicated by the letters e and f; then E and F represent the corresponding negatives and Ǝ and ꟻ the corresponding prints:—

RIGHT HAND X-RAYED as described.

No.	Photographs in order side by side.	Perspective tested by apparent convergence of lines perpendicular to plane of delineation.	Appearance of hand.
I. Negatives.	E F	Correct binocular Perspective.	Right hand through back.
II. Negatives.	F E	Distorted and irrational Perspective.	Left hand through palm.
III. Prints.	ꟻ Ǝ	Correct binocular Perspective.	Left hand through back.
IV. Prints.	Ǝ ꟻ	Distorted and irrational Perspective.	Right hand through palm.

In all four combinations the *relative* position of the needle in regard to the bones is the same, namely, in front of the fifth metacarpal bone.

Our illustrations give No. III. & IV. Obviously No. I. is the only correct arrangement, though No. IV. would pass muster in a court of law, and (when "relief" in the single print is perceived at all) is generally the accepted perspective. No. II. is the "Conversion of Relief Image" (=exchange of near and far) of No. I.; and No. IV. is the "Conversion of Relief Image" of No. III. The best cure for "Conversion of Relief" in the single photograph is a conversion of belief; namely, that the X-ray print is analogous to the photographic print—whereas it is the X-ray *negative* and the photographic *print* which properly correspond in function. The relations in columns three and four hold good as long as the pairs are inverted together in the same relative order; separate inversion of the single photographs gives at once a different relation, of course. Furthermore, as was to be expected, any pair rendered

transparent and looked at from the back (as long as they are in the same relative order) gives the same perspective effect, save only that right becomes left, and left right.

The principles set out in the table hold good with every part of the body; and in ordinary photography in a modified way. Even the notation holds good, so long as we remember that the radiographic *negatives* E and F correspond in perspective with the photographic *prints* E and F.

The illusion known as "Conversion of Relief" in actual vision deserves a fuller consideration elsewhere. It suffices here to point out that the latent images on the two retinæ, being separately inverted, are in the same relation to each other as in a twin stereoscopic camera: that is, in an order tending to produce the illusion in question. One of the puzzles of binocular vision is as to how and where the necessary re-arrangement and re-combination of the separately-inverted images take place.

For the original negatives of the accompanying illustration I am indebted to Mr. Thomas Clark, whose electrical influence machine (as described in this *Journal* for Sept., 1899, and designed by himself) possesses the qualities of definition and steadiness required to produce a pictorial effect; the silhouette of the needle, the surface contour of the palm, and the calcareous skeleton of each bone being clearly represented.

THE TREATMENT OF CERTAIN DEFORMITIES, MORE ESPECIALLY OF THE NOSE, BY THE SUBCUTANEOUS INJECTION OF PARAFFIN.

BY

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THE subcutaneous injection of paraffin was brought to our notice by Gersuny, of Vienna, who, a year ago, published a series of 30 cases with no accident. It is, however, quite an open question whether or not this mode of correcting defor-

No. 1.

Before Treatment.

No. 2.

After injection of Paraffin.

mities will in the future be largely used, as we have yet to learn what percentage of failures takes place.

The "saddle-back" nose of inherited syphilis, where the lateral arches and the septum of the nose have ulcerated and left little else than the columnæ to support the tip of the nose, forms the larger class of deformities where this line of treatment may be considered. It may also be tried for certain forms of incontinence of urine, for incontinence of fæces, after excision of the rectum, or after extensive operation for anal fistula: I have myself used it for the latter condition with some little success. It has also been suggested to use it for defects after operation for cleft palate, for prolapse of the uterus in suitable cases, when a kind of subcutaneous pessary of paraffin is deposited, also after excision of the jaw to raise a depressed cheek, and many other conditions.

The skin of the nose is cleaned in a surgical manner, and a mixed paraffin (that is, a mixture of hard and soft paraffin in such proportions as ensures a melting point of 105° or 106° F.) having been carefully sterilised shortly before being used, is drawn into a large hypodermic syringe, and one to two drachms injected under the soft parts. Great care must be taken to prevent the injection travelling along the loose planes of connective tissue, and so into the eyelids: this is best done by the fingers of an assistant keeping up constant pressure till the paraffin becomes partially set. The paraffin must not be used too hot, as there is danger of causing sloughing or thrombosis in the neighbouring veins, and so pulmonary embolism. It usually sets up a mild reaction in the parts round the puncture for a day or two; granulations very slowly grow into the paraffin; at the end of a week it is still doughy, but getting firmer, and finally the mass becomes encapsuled and quite hard in the course of two months.

The paraffin does not appear to be absorbed for years, at any rate; for Gersuny found the mass undiminished in size two years after operation.

Out of three cases, I am only able to show two photographs of a girl of eighteen, who has been under my care for nine years for a gradual falling in of the bridge of the nose, due to

destruction of the bony and cartilaginous supports by ulceration, which the mother states was due to a wound caused by falling on a knitting-needle which the child had in her mouth, and which perforated the nasal cavity.

No. 1 photograph, taken before operation, shows the marked "saddle-back" condition that existed; and No. 2 photograph, taken two months after operation, shows the marked improvement to the bridge of the nose.

Three months after operation there was some slight suppuration, or rather exudation of paraffin to a small extent; but this has ceased, and has not altered the shape of the nose as shown in photograph No. 2.

The second case was similar to the one described above, but with no suppuration; in the third patient the paraffin was injected in two places on each side of the anus in a case where there was some incontinence of fæces following an extensive operation for numerous fistulæ round the anus, which involved the removal of a considerable portion of the soft parts. The injection in this case caused no trouble, and has apparently been quite successful in its action.

NOTES ON THREE PATHOLOGICAL SPECIMENS.

BY

C. E. S. FLEMMING, M.R.C.S., L.R.C.P.

THESE interesting specimens were shown at a meeting of the Bath and Bristol branch of the British Medical Association on November 27th, 1901.

Fig. 1 is the photograph of a heart with the pulmonary artery perforated by a needle. On a Monday morning I was called to see a child, aged 6, who was said to be dying. I found him dead, and was told the following history. The boy had appeared quite well until the previous Saturday, when, soon after an attack of vomiting, supposed to be due to eating apples, he fell back faint; the fit lasted some minutes, but he soon got

all right again. On Monday morning he complained of no pain, ate a good breakfast, ran to the door to get the milk, came back and put it on the table. The mother had meanwhile left the room; when she returned in a few minutes, she found the boy in the next room, lying on the floor, dying or dead.

I next day made a *post-mortem* examination, and on turning back the sternum found the broken end of a fine sewing needle, in the position of the 2nd space just to the left of the sternum: the needle was fairly firmly fixed at the broken end; it passed through the lower edge of the thymus gland. The pericardium was distended and found to be filled with dark fluid blood. The heart was firmly contracted, with all its cavities empty. On turning back the pericardium the point of the needle was found projecting some 2 mm. through it; there was an irregular superficial wound on the front of the pulmonary artery, some 8 mm. long by 2-4 mm. wide, with a complete linear perforation in the centre, as the photograph shows. There was no sign here of any attempt at repair, though inside the artery just at this spot there was a small, thin, ribbon-like *ante-mortem* clot. There was considerable thickness of the parietal pericardium for some distance round the needle, and a few mm. to the right of the needle a small scar as if it had previously been perforated there; on the front of the aorta was a small, round, dark-coloured swelling, looking like a minute aneurysm—it shows as a white spot in the photograph. The fragment of needle was 13 mm. in length. When I told the mother what I had found, she remembered that two months previously the boy on returning from school had said that another child had pricked him in the chest with a needle. She and her husband looked, but saw no mark, and nothing more was thought of the incident.

Evidently when the needle was thrust in it broke and became fixed in the firm tissues between the costal cartilages, and at first lay pointing down to the right, and so, although at the moment of impact it may have injured the aorta sufficiently to cause the small swelling found there, it afterwards receded and remained clear of both vessels. From the recent character of the wound of the pulmonary artery and from the thickening

around the needle in the parietal pericardium, it is fairly evident that the needle-point frequently changed its position within this thickened area, and probably did not again enter the pericardial cavity until pushed in by the attack of vomiting. It is remarkable that the fainting attack following this was the only symptom from the day of the accident until the fatal attack; even during the last forty-eight hours, when with probably every respiratory movement damage was being done, there was apparently no marked sign or symptom. Of course one must remember that among this, the labouring class of people, where children are often too much a burden, small signs and symptoms are not noticed, and casual complaints without signs are but little heeded.

Fig. 2 is a photo-micrograph of a section of a small cavernous angioma removed last August from the finger of a woman, aged 23. The patient last June year received a blow from the head of a nail on the outer side of the first phalangeal joint of her forefinger; the skin was not broken, but a painful bruise-like swelling quickly formed, and this prevented her from working for a month. The swelling gradually diminished to the size of a lentil; and this little dark tumour remained unaltered until about six weeks before I removed it, when it began to grow and to be painful. When I saw it it was about 1 c.m. in diameter, moveable under the skin which was not involved, and not altered by pressure; it grew in the not very vascular fibrous tissue at the side and back of the joint, and was easily dissected out—an irregular-shaped, distinctly encapsuled tumour; on section it was dark-red and soft, but apparently solid. I thought it might be a sarcoma, but histologically it proved to be a typical cavernous angioma.

With a history so clear, there can be little doubt that this growth arose from the blood-clot produced by the blow with a nail more than a year before. It is most improbable that there was already a nævus unnoticed in this very spot. This admitted, it is a fact of considerable interest, apart from its unusual occurrence, as possibly throwing some light on the origin of these tumours, and supporting Unna's theory that congenital angiomata are due to intra-uterine pressure, though,

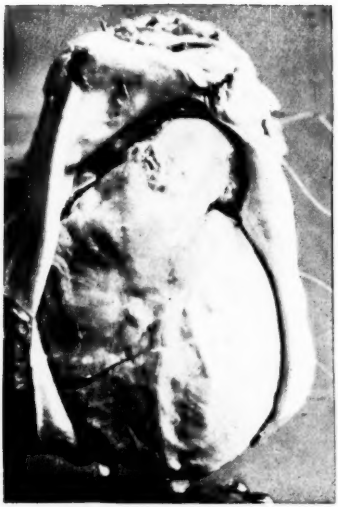

Fig. 1.

Heart—Pulmonary artery perforated by a needle.

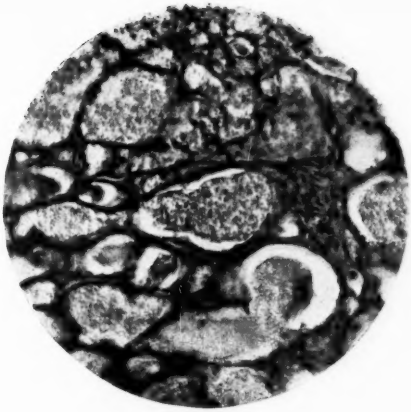

Fig. 2

Cavernous angioma of finger.

Fig. 3.

Meningeal clot, three years old.

as I read it, he only applied his theory to the cutaneous variety. Yet as to why one organised and encapsuled clot should disappear and another grow into a distinct tumour there is nothing to show. Histologically there is but little, often no difference between the structure of the vascular highly-organised clot one finds, say, in an old thrombosed common iliac vein and that of a cavernous angioma.

Fig. 3 is from a meningeal clot, judged from the clinical history to be three years old. The clot was, when removed, colourless, and on section its endothelial lined spaces were found to contain no blood cells, but only a hyaline or granular material. How easily one can imagine these spaces, if suddenly connected with some blood supply, growing larger, some coalescing, the whole mass increasing in size without any fresh hemorrhage to account for its growth. Possibly some of the large fleshy meningeal clots of old standing may actually have the life-history, if not the name, of angioma. It would seem as if the blood-clot required to be encapsuled in a position poorly supplied with blood-vessels, so that it should not be absorbed, while it evolved in itself some condition which under some fresh circumstance, *e.g.* the ingrowth of a blood-vessel, should start it growing.

Rokitansky's theory is that the connective tissue element of an angioma is developed outside the vascular system, and only connected at a later date. This can quite accord with the history of my case, where probably for many months the organised clot remained like the meningeal clot (Fig. 3) until its endothelial lined spaces became in some way directly connected with a blood supply; but still, as Rokitansky implies, the connective tissue must contain some element of new growth, either from inclusion in the original clot at the time of its formation or from some personal factor, or from both combined.

I have to thank Mr. James Taylor, of Clifton, for very kindly preparing the excellent photomicrographs.

THE UNRELIABILITY OF THE MICROSCOPE IN THE DIAGNOSIS OF MALIGNANT DISEASE.

BY

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AT the present time, when the whole subject of malignant disease is being reviewed in the light of recent knowledge and research, it may not be out of place to consider the value of the microscope, which has for many years been regarded as an essential and indispensable adjunct to diagnosis. In making the following criticisms, I wish it to be distinctly understood that it is the judgment, not the *bona fides*, of the microscopist which I mistrust.

Ten years ago I commenced surgical practice with a firm belief in the value of the microscope in the diagnosis of malignant disease, such belief being the natural result of my training as a student. From January, 1892, up to the present time I have seen the value of the microscope repeatedly and extensively tested in the diagnosis of all the more common varieties of malignant tumour. This process has resulted in a series of shocks to my previously firmly-rooted belief, and the only conclusion which I am able to draw from my experience is, that the microscope for purposes of differential diagnosis is totally unreliable. One of the earliest cases was that of a simple adenoma of the thyroid gland, which had been easily removed by enucleation. The growth was examined microscopically by a recognised authority, and reported to be undoubtedly malignant. Nothing in the naked-eye appearances of the growth or the after-history of the case supported this astounding piece of information. Similar equally erroneous diagnoses have repeatedly come under my observation.

Time after time I have seen the microscopical diagnosis of carcinoma, sarcoma, and inflammatory swelling absolutely disproved by the after-history and course of the disease. It is

hardly to be wondered at that the microscope should thus fail in the diagnosis of a disease, the cause of which is at present unknown, notwithstanding the discovery of cancer parasites of late been reported almost weekly. The microscopist fails because he is trying to achieve what is, with our present knowledge, an impossibility. The surgeon is naturally reluctant to relinquish a belief in which he has been reared, but unless a particular article of surgical faith is justified by results its further logical tenure becomes impossible. This, I contend, is the case with the belief in the microscope for the diagnosis of cancer. In cases in which the clinical appearances and history, aided by the naked-eye appearances on section, fail to settle the diagnosis, I have generally found the microscopist's report to be of no assistance.

Mistrust of the microscope as a court of appeal, in which the nature of a tumour can be decided once and for all, is on the increase, of which the following expressions of opinion are evidence :—

The *Lancet* has summarised Mr. Jonathan Hutchinson's [1] views in an annotation entitled, "The Microscope and the Early Stages of Cancer," as follows :—

"That microscopic examination is a valuable aid in the diagnosis of cancer and in doubtful cases a decisive test is generally held. Such is not the view of Mr. Hutchinson. In a recent number of the *Archives of Surgery* he insists that the microscope can give no aid in the recognition of the pre-cancerous stages of cancer. For a long time he has been a warm advocate of early operations and in certain cases of their performance before absolute certainty in diagnosis can be felt. He states that in well-pronounced conditions microscopic examination is not needed and in doubtful ones it cannot assist. Characteristic appearances in the mode of growth and the manner of ulceration are almost always obvious to the instructed eye before the histological conditions have become such that they can be trusted. Thus, according to Mr. Hutchinson, in their early stages cancerous growths are not histologically cancer; chronic inflammatory changes almost invariably precede for a

[1] *Lancet*, 1898, i. 1132.

longer or shorter period those which are definitely malignant. A negative result with the microscope often begets a false security and leads to a loss of time which it is impossible to retrieve. Mr. Hutchinson finds that this is constantly occurring; in the previous month he saw four such cases. A man had a large and most characteristic epithelial cancer in his soft palate in a stage almost too late for excision. Eighteen months previously a portion had been cut away which on microscopical examination was pronounced not to be cancer. Mr. Hutchinson asks, 'Would it not have been better to have removed the whole?' In a case of ulcer of the tongue the patient was assured as the result of microscopical examination that he was not suffering from cancer, but two months later the contrary was proved. On one occasion Mr. Hutchinson removed the whole tongue for what he believed to be a broken-down cancerous mass which had suppurated. An experienced pathologist who examined the specimen assured him that there was no cancer but simply an abscess cavity. Within a few months, however, the glands enlarged, and in less than a year the patient died. In a case of cancer in the palm of the hand occurring after prolonged administration of arsenic, microscopic sections were made which were examined by various authorities in America, in this country, and on the continent, with the result that most diverse opinions were given. Several insisted that the disease was syphilis and not cancer."

Sir William M. Banks,[1] in the *Lettsomian Lectures for the Year 1900*, in discussing the differential diagnosis between chronic interstitial mastitis and cancer, after a lifetime's experience in the surgery of the breast, says:—"How is this to be known? By cutting through any suspicious mass or nodule. I am quite sure that the section which an experienced surgeon makes with a knife through a fresh piece of carcinoma will enable him to give a far more decided and certain opinion than anything which the microscopist can give. Not that for a minute I would speak disparagingly of the value of microscopical examination. When it coincides with the naked-eye view of the clinician so much the better, but when they differ I hold

[1] *Lancet*, 1900, i. 846.

that the history of the tumour and the look and feel of the fresh section constitute the most trustworthy guide."

Mr. J. Knowsley Thornton,[1] in a Presidential Address to the Harveian Society in the year 1897, said: "Though formerly an enthusiast with the microscope, he had come to regard the knowledge which it gave as over-rated, especially in regard to new growths. If he had to choose between the microscope and clinical observation in deciding what was malignant and what benign, he would rather be guided by the latter, though the microscope was useful in suggestion and in confirmation. It should not be the arbiter in doubtful cases."

Dr. H. D. Rolleston and Mr. H. W. J. Marks,[2] in an article on "Primary Malignant Disease of the Supra-renal Bodies" (published in the *American Journal of the Medical Sciences* for October, 1898), point out that it is almost impossible to differentiate histologically an adenoma disorganised by hemorrhage from a primary malignant growth. Hence they prefer to rely for diagnosis of malignancy on metastasis and invasion of surrounding parts, and not on the microscope.

Mr. Marmaduke Sheild,[3] in a lecture on "Mammary Cancer," says: "It may seem heretical to state that the naked-eye appearances as exposed on exploratory incision are, in my own opinion, more likely to lead the surgeon right than are the results of microscopical examination. I have always found that when I have been in doubt between inflammatory tissue and early cancer the same doubt occurs to the microscopist if only he possesses the somewhat rare attributes of a sceptical mind associated with accuracy of observation. On the other hand, I have known serious prognostical difficulties to arise from relying too certainly upon dubious microscopical appearances. I cannot recommend these observations too strongly to your serious consideration." Later in the same lecture Mr. Sheild says:—"At the same time I am coming more and more to the conclusion, which I fear many of my audience will term retrograde, to depend more and more upon naked-eye appearances and less upon microscopical, and unless a

[1] *Brit. M. J.*, 1897, i. 269.

[2] *Lancet*, 1898, ii. 1283. [3] *Ibid.*, 1902, i. 643.

nodule of cancer be found showing the typical appearances on section to the naked-eye to be hyper-cautious regarding any positive diagnosis made by the microscope only."

At a meeting of the Royal Academy of Medicine in Ireland on January 22, 1897, Mr. Myles,[1] in a discussion on "Cancer of the Tongue," said: "Microscopic examinations of scrapings or of fresh sections of the tongue were absolutely unreliable. Professor Hamilton of Aberdeen brought under the notice of the profession the changes that occurred in the tongues of old people, and produced microscopic sections of the tongues of persons over fifty-five years of age, and every one of these presented the identical appearances that were usually associated with epithelioma. He placed side by side with them sections of clinical epithelioma and the most expert pathologists were unable to distinguish between the two."

My present position is this—the microscope having failed me, I am thrown back on the relatively more reliable naked-eye appearances.

If the clinical history and naked-eye appearances on fresh section indicate that the growth is malignant, but under the microscope the growth appears innocent, I regard the growth as malignant.

If the naked-eye appearances are innocent, but the microscopic appearances malignant, I regard the growth as being innocent.

In other words, when the naked-eye and microscopic appearances differ I base my diagnosis and treatment on the clinical history and naked-eye appearances on fresh section, because I have found them to be the more reliable.

[1] *Lancet*, 1897, i. 456.

ON THE USE OF MORPHIA IN URÆMIA.[1]

BY

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and F. H. EDGEWORTH, M.B., B.Sc., B.A.,
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THERE is a curious and interesting divergence of opinion as to the value of morphia in the treatment of uræmia, to which we wish to direct your attention. On the one hand Osler,[2] after saying that uræmic convulsions should be treated by inhalation of chloroform, bleeding, and diaphoresis by a hot-air bath, proceeds as follows:—"For the restlessness and delirium morphia is indispensable. I have never seen any ill-effects or any tendency to coma. It is of special value in dyspnœa and Cheyne-Stokes breathing of advanced arterio-sclerosis with chronic uræmia." On the other hand, Dickinson,[3] who may be taken as representing the traditional English view, says: "Opium and its derivatives should be avoided in the convulsive and every other stage of organic albuminuria, save only with the lardaceous kidney, when they are permissible and sometimes useful, but not when the condition is productive of convulsion or any other uræmic symptom."

These views are as divergent as it is possible for them to be —Dickinson advises us to altogether refrain from the use of a drug in uræmia, which Osler says is indispensable and has never in his experience produced any ill results. It may be noted that Dickinson does not give any reasons for the faith which is in him: for instance, he does not say that he has seen ill effects from the use of morphia in uræmia.

The opinion of younger English physicians is a little more favourable. In the *Practitioner*[4] for last year are some valuable articles on Bright's disease, and that on treatment is written by

[1] A paper read before the Bath and Bristol Branch of the British Medical Association.

[2] *The Principles and Practice of Medicine.*

[3] Allbutt's *System of Medicine*, vol. iv., 1897.

[4] 1901, lxvii. 499 *et seq.*

Hale White,[1] who, though not mentioning the use of morphia in the general treatment of uræmia, or in that of uræmic headache, sleepnessness or dyspnœa, yet in the paragraph on uræmic convulsions says. "Perhaps, if bleeding and other methods of treatment have done no good, the best drug is morphine, although, as these patients have diseased kidneys, it must be given with the greatest care."

Curiously enough, in the same number of the *Practitioner* Dr. Berry Hart strongly recommends the employment of morphia in puerperal eclampsia—a condition which, though not identical with, is yet closely allied to uræmia.

Modern English opinion then hesitates between the two extremes: though it does not absolutely condemn like Dickinson, it does not strongly recommend as does Osler.

In view of these divergences of opinion, we would wish to bring before your notice a case of granular kidney and chronic uræmia where morphia was used for some two years, with the happiest results.

In the summer of 1899 a man, aged 60 years, fat and heavily built, came under the care of one of us with symptoms and signs of chronic renal disease. He was anæmic, with a high-tension pulse—80 to the minute—and thickened arteries. The left ventricle of the heart was enlarged, and there was a markedly accentuated aortic second sound, with a prolonged booming first sound. He was a little dyspnœic on slight exertion, but there were no physical signs of heart failure. The lungs and abdomen were normal. The urine was constantly albuminous, of low specific gravity, and from 60 to 80 ozs. were passed daily. There was no albumiuric retinitis. He was given iron, saline purgatives, erythrol tetranitrate as a vaso-dilator, and was advised to take Turkish baths.

During the autumn of 1899 he had several attacks of very high vascular tension, producing temporary mitral regurgitation.

On November 27th the patient was seized with uræmic coma and convulsions. When seen he was unconscious, breathing stertorously, slightly livid, with occasional clonic convulsions of the face and both arms. The pupils were equal,

[1] *Practitioner*, 1901, lxvii. 658.

slightly dilated, and there was a slight corneal reflex in both eyes. The pulse was 80 per minute, regular, full, and of low tension. This condition had come on suddenly two hours previously, and had persisted unchanged. The patient was bled to 20 ozs. The convulsions ceased a little after the blood had begun to flow, and by the end of the venesection he recovered consciousness. He slept soundly that night, and on the following day he showed no signs of uræmia or of paralysis.

On the 29th, at 4 a.m., he became delirious, and remained in that condition all day in spite of 20 grains of bromide every other hour. A vapour bath, from 9 to 9.30 p m., produced satisfactory diaphoresis, but violence continued, and at 9.45 p.m. he was given ¼ gr. morphia sulphate hypodermically. The delirium continued to be so violent that it was necessary to keep two men with him until 1 a.m., when another ¼ gr. of morphia was given. He soon became drowsy and passed into restless sleep. The morphia produced very satisfactory sweating. At 5 a.m. he awoke and gradually became more and more noisy. A third ¼ gr. was given. He quickly fell asleep, slept for two hours, and awoke less delirious and anxious to take milk. He was slightly delirious all that day, and was given one more dose of morphia in the evening. The following morning all trace of delirium had disappeared. He gradually grew stronger, and was able to resume work by the middle of January, 1900.

Subsequently to this initial attack, definite attacks of some phase or other of uræmia occurred on the following dates:—On February 1st, 1900, persistent vomiting took place, continuing all through the day and following night. It was stopped by the injection of ¼ gr. of morphia on the morning of the 2nd. Intense headache in the following week was relieved by liq. morph. mur. ♏ iij. t.d.s., and his general condition improved so much that the patient was able to get up and do a little work after the 10th. Small doses of morphia and potassium iodide were continued during the remainder of that month.

On May 9th the patient had two attacks of uræmic convulsions and unconsciousness at half an hour's interval.

Quarter of a grain of morphia was given. Sound sleep and profuse diaphoresis followed the injection, and four hours later he was able to be put to bed. In two days he was so well that he got up and resumed work, but continued to take morphia and pot. iod. for about a fortnight.

On July 3rd there was a similar attack, which was similarly treated. All effects passed off in five days.

On October 1st the patient had a severe attack of vomiting, headache and giddiness. Quarter of a grain of morphia hypodermically, followed by ♏ v. liq. morph. mur. 4^{is} horis, with purging by salines, enabled him to be about again in four days.

On January 13th, 1901, muscular twitchings and nausea yielded quickly to liq. morph. mur. ♏ v. t.d.s. by mouth, with free purging.

On February 16th severe dyspnœa and vomiting, with great feeling of depression and general illness, were relieved by injections of morphia on the 16th and 18th. He was able to resume work on the 20th.

On April 20th the patient had a slight uræmic convulsion without loss of consciousness. One injection of morphia, followed by liq. morph. mur. ♏ iij. with pot. iod. gr. v. t.d.s. for a week, enabled him again to resume work. His general health, however, was becoming enfeebled, and his work, noticeably to all his friends though not to himself, was much deteriorating, apparently through defective vision.

In June he began to complain of defective sight, and suffered greatly from mental depression. Mr. Cross, whom he consulted, reported that albuminuric retinitis was present in both eyes.

On August 17th the patient became delirious, with loss of memory and some delusions. On September 20th he had an attack of cerebral hemorrhage, and died two months later. No *post-mortem* examination was permitted.

The patient was fairly careful as to his diet throughout the course of his illness, and abstained entirely from alcohol after his first uræmic convulsion in 1899. He regularly obtained a loose action of the bowels by taking a morning dose of saline,

and always passed from 60 to 80 ozs. of clear, pale urine, of sp. gr. 1005—1010, in which there was usually a trace of albumin.

On reviewing the patient's illness it is seen that during nearly two years he was liable to uræmic attacks—in the varied forms of convulsions, coma, headache, vomiting, dyspnœa, and delirium—phenomena which yielded on each occasion to the administration of morphia. It is further noticeable that the drug produced diaphoresis, and did not diminish the quantity of urine passed. At no time in the course of its frequent use did it give rise to any untoward symptom or occasion any anxiety.

Such a history as this casts much doubt on the correctness of Dickinson's advice, at any rate in cases of chronic Bright's disease, and lends strong support to the truth of Osler's statements.

Progress of the Medical Sciences.

MEDICINE.

The subject of **Thrombosis** has of late derived a new interest from the recognition of its association with various infective processes, and to the new light as to its pathology which the demonstration of various micro-organisms has given. "The word 'thrombosis' conjures up before our minds not those benign effects, but some of those disastrous results which we so often see following upon the untimely clotting of blood within the vessels. We think of pains and long-drawn-out disabilities, of extended periods of rest and idleness, perhaps of permanent lameness or paralysis, or even of sudden death, or the *ante-mortem* agony, all of them so often resulting from thrombosis. Indeed, it plays almost as prominent a part in disease and death as in the preservation of health and life; perhaps we hardly realise how large a part it plays . . . how enormous an advance in practical medicine it will be when thrombosis will be known only as a beneficent phenomenon and when we are able to prevent its occurrence as a baneful process."[1] Phlegmasia alba dolens, milk leg, phlebitis, commonly considered to be a somewhat rare occurrence, was described by Paget[2] as not unusual after typhoid;

[1] Pearce Gould, "Thrombosis," *Lancet*, 1902, i. 1583.
[2] *Selected Essays*, 1902, p. 212.

and Sir James explained it as an inflammatory thickening and swelling of the walls of the vein with consequent narrowing of the canal, occurring commonly when the temperature has become normal and constant, but not usual during the continuity of the fever. Murchison described it as occurring in about 1 per cent. of the cases of typhoid. Da Costa gives a very different record, for he found in a series of 135 cases[1] that it occurred in 14 per cent. of cases, which were mostly of a severe type, during the period of convalescence, one case on the fortieth day, another on the fiftieth, another on the fifty-ninth day. Of the 18 cases, 3 were in the left leg, 2 in the right leg alone, and 13 in both legs. In two cases the thrombosis occurred in a relapse whilst the temperature was still high. The long-debated question as to the occurrence of a primary thrombosis in a healthy vein, or the presence of phlebitis, has been solved by the demonstration of bacilli in the clot, the clotting being due to the bacilli in the sluggish circulation of the infected blood.[2] It is now generally admitted that thrombosis is commonly due to an infective arteritis or phlebitis, that the infection may be due to a great variety of micro-organisms, and that the occurrence of thrombosis is evidence of an infective condition in the great majority of cases.

Cases of peripheral venous thrombosis in pneumonia have been reported by Walter H. Steiner, M.D.[3] He alludes to the fact that it is common in certain infective diseases, such as typhoid and influenza, also following some abdominal operations, but that it is rare in pneumonia.

Da Costa's case, reported in 1894, was then considered to be unique; but in 1898 he reported two others, making three cases in a series of 500, and the following conclusions were drawn:—1. Rarity of thrombosis in pneumonia; only 38 cases could be collected. 2. In 27 out of the 32 it occurred during convalescence, and must be regarded as a sequel rather than a complication of the pneumonia; and 3. The lower extremities were always the parts involved, the left leg in 16, the right in 10, and both in 7 cases.

In malaria, syphilis, tuberculosis, puerperal, and other septic states, thrombosis is by no means rare, as also is the case in chlorosis, when it is likely to be due to mechanical and other than bacterial conditions.

Leichtenstern found it 11 times in 1653 chlorotics, and that it commonly affected both lower limbs. In a collected series of 86 cases the lower limbs were affected 48 times, and the cerebral vessels 29 times.

In accordance with modern views as to the etiology of rheumatic conditions, an infective thrombosis is likely to be of occurrence in rheumatic states. Sansom[4], however, states

[1] *Boston M. & S. J.*, 1899, cxl. 273. [2] *Hanshalter. Merc. Med.*, Sept., 1893.
[3] *Johns Hopkins Hosp. Bull.*, 1902, xiii. 130.
[4] *Twentieth Century Practice of Medicine*, 1896, vol. iv., p. 639.

that it is not known to exist at all; but if the conclusions of Poynton and Paine[1] are correct, an infective thrombosis of rheumatic origin should now and then be recorded.

Two such cases have recently been observed by myself. A man, æt. 62, ill three months with rheumatic pyrexia and two relapses, with many joints swollen, and relieved by salicylates, but with no obvious heart defect, became hemiplegic on right side and aphasic: after one week he had recovered some power in the arm and could speak a few words; but a week later became more and more somnolent and died without a fresh attack of any kind, and with no return of pyrexia or any heart symptoms.

The other case is that of a man, aged 40, whose illness commenced in February with left sciatica; a month later he had pyrexia, with swelling of the right thigh and calf, due to thrombosis of the femoral vein; afterwards similar swelling on the left side; one month later intercostal pains with pleural effusion at the left base occurred, and ten days later pleural effusion at the right base. Meanwhile the rheumatic symptoms, with more or less persistent pyrexia, continued for many weeks, and the convalescence was unusually protracted, as is usually the case with thrombosis of both femoral veins.

Such cases as these naturally suggest the idea that the thrombosis is of infective origin, and resembles that following typhoid, pneumonia, and puerperal conditions, and it gives an argument in favour of the views advocated by Poynton and Alexander Paine[2], showing that all the varieties of rheumatism, even the osteo-arthritic type of rheumatoid arthritis, and the malignant endocarditis of rheumatic origin, are of an infective character.

A paper by Dr. W. H. Welch[3], of Baltimore, directs attention to venous thrombosis as a complication of cardiac disease. He had been able to collect a series of 27 cases, and in the majority the location of the thrombus was in the veins of the neck and upper extremities. In one case, reported by the author, the streptococcus pyogenes was found, and it was thought that the thrombosis was, even in such cases as these, usually of micro-organismal origin. In another such case, reported by Dr. D. B. Lees[4], thrombosis of the brachial veins had been present.

It seems likely that further evidence will tend to show that the microbial origin of thrombosis is much more common than has been supposed, and is of almost equal importance with, perhaps more so than, the various mechanical conditions connected with the heart and blood-vessels, which are well-recognised causes of clotting in the veins and elsewhere.

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[1] *Bristol. M.-Chir. J.*, 1901, xix. 136.
[2] *Brit. M. J.*, 1902, i. 79, 895.
[3] *Brit. M. J.*, 1900, i., Epitome, p. 85. [4] *Brit. M. J.*, 1901, ii. 1345.

The nervous affections of the heart were the subject of the Morison Lectures by Dr. G. A. Gibson.[1] After a survey of the clinical aspects of the sensory affections of the heart, and an historical outline of the subject, he enters a protest against the separation of the angina into true and false, and considers that Balfour's arguments on this question are unanswerable. The commonly accepted views are embodied in Huchard's table[2]:—

True.	Pseudo-Angina.
Most common between 40 and 50 years.	At every age, even six years.
Most common in men. Attacks brought on by exertion.	Most common in women. Attacks spontaneous.
Attacks rarely periodical or nocturnal.	Often periodical and nocturnal.
Not associated with other symptoms.	Associated with nervous symptoms.
Vaso-motor form rare. Agonizing pains and sensation of compression by a vice.	Vaso-motor form common. Pain less severe: sensation of distension.
Pain of short duration. Attitude: silence, immobility.	Pain lasts one or two hours. Agitation and activity.
Lesions: Sclerosis of coronary artery.	Neuralgia of nerves and cardio-plexus
Prognosis grave, often fatal.	Never fatal.
Arterial medication.	Anti-neuralgic medication.

He embraces all the varieties of sensory defects of the heart under the one term angina, including sensations of vague uneasiness, numbness or deadness, feelings of cold and heat, sense of oppression or constriction amounting to excruciating agony, with sinking and a sense of impending death,—sensations distributed widely over the first six thoracic segments of the cord, or limited to pericardium and epigastrium, or radiating therefrom to the angle of scapula, shoulders, ulnar aspects of the arm and fore-arm to the extremities of fingers; also to the inguinal regions, into the head and neck, and including what is known as globus.

"It is earnestly to be hoped," he writes, "that the term pseudo-angina will, before long, be banished from modern medicine. It ought to be relegated to the limbo of archaic notions, as an entire anachronism in the twentieth century of our era." The division of things so widely different from each other into two great classes, the organic and inorganic, is admissible, but no absolute line can be drawn between even these two great classes.

"Amongst the organic type must be grouped instances of the affection dependent upon alterations about the origin of the aorta; changes in the walls and lumen of the coronary arteries; modification in the structure of the myocardium, of which fibroid, fatty, pigmentary, and gummatous lesions are the most common; the presence of pericarditis; the existence of aneurism; the growth of tumour.

[1] *Edin. M. J.*, 1902, N. S., xii. 24.

[2] Osler, *The Principles and Practice of Medicine*, 4th Ed., 1901, p. 764.

"The inorganic varieties fall into toxic and neurotic classes. The former, or toxic class, may be due to chemical or microbic influences. Amongst the former, tobacco certainly holds the foremost place; but alcohol, in this country, is certainly responsible for a considerable proportion of cases; tea, on the other hand, judging by my own observations, is an extremely rare cause of painful cardiac symptoms; certain of the endogenous chemical poisons are also potent, more particularly those which are connected with the symptoms commonly classified under the terms gout and diabetes. Amongst the microbic factors, influenza is certainly the most powerful, but malaria, diphtheria, and typhoid fever also furnish instances. The latter, or neurotic group, is a somewhat indefinite class; it practically resolves itself, however, into four varieties. There are cases in which reflex agencies are the cause of the symptoms; in which vasomotor instability is the dominant factor; in which neurasthenia forms the determining condition; and lastly, in which hysteria is responsible for the onset of the affection."[1]

R. Shingleton Smith.

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Tubercular ulcers of the stomach are rare, and their symptoms are often marked by those of widespread tubercular disease. Batsère in a series of observations[2] discussed their diagnosis. They are generally multiple and situated near the pylorus on the greater curvature. Instead of the irregular shape of tubercular ulcers of the bowels, these ulcers are round. They may cause severe lancinating pain upon taking food, which sometimes goes on to vomiting and hæmatemesis. The latter is of course strong evidence of the condition, if other causes can be excluded. The progress is steadily downhill in most cases; but occasionally the symptoms disappear, though this may be followed by severe hemorrhage after an interval.

Hæmatemesis in uræmia, appendicitis, acute intestinal stenosis, and from minute erosions should also be remembered. Hale White[3] thinks that many cases in chlorotic girls are due to erosions rather than to real ulcers, and remarks on the recurrence of these bleedings in some women until the menopause, and the fact that ulcers have occasionally been absent in such patients when the stomach has been opened by surgeons. However, the diagnosis from ulcer is most obscure clinically.

* * * * *

A very interesting research on the so-called **peripheral reflex secretion of the pancreas** by Bayliss and Starling[4] has disclosed the fact that the mucous membrane of the duodenum and jejunum secretes a substance, under the influence of the acid chyme from the stomach, which excites through the blood a copious secretion from the pancreas. There is nothing reflex

[1] Gibson, *loc. cit.*

[2] *Thèse de Toulouse*, 1901; Abstract in *Brit. M. J.*, 1902, i. Epitome, p. 37.

[3] *Lancet*, 1901, i. 1819.

[4] *Vide infra. Proc. Roy. Soc. Lond.*, Jan. 23.

about the process, for it takes place when all the nerves are removed. The "secretion" is split off from an inert prosecretion by the H.Cl., and is apparently a body of definite composition and of small molecular weight. A sympathy between different organs, such as the uterus and mammæ, has been often assumed; but this is the first instance where direct chemical proof has been obtained and the process explained. In the Lausanne laboratory[1] a somewhat similar research has shown how the stomach manages to secrete the quantity of acid or pepsin required for a given meal. It turns out that certain substances when ingested cause an increased secretion of the agent required for digestion. Thus the secretion of the H.Cl. can be greatly increased by small doses of meat extract or of ethyl alcohol, that of pepsine by minute doses of dextrin, though it is checked by large ones. The action takes place in some cases at least through the blood stream, for dextrin injected into the rectum will increase the output of pepsin in the stomach.

G. PARKER.

SURGERY.

The possibility of **primary ovarian pregnancy** was for long a contested point, but several cases recorded of late have fully established the condition. It is a fact, moreover, that the ovarian pregnancy may occur as a result of impregnation through the opposite Fallopian tube. The first case on record is probably that of Bernutz and Goupil some seventy years ago, and Hastings Gilford, who described the first authentic case within recent years,[2] has analysed the literature of the subject, and concludes that sixteen cases had been previously described besides twelve other probable ones.[3]

The nature of Gilford's case was verified by Mr. Targett, although the specimen was lost when referred to the sub-committee of the Obstetrical Society. Shortly afterwards an interesting example, obtained by Prof. Kouwer, was described by Mdlle. v. Tussenbroek.[4] The patient was a healthy young mother who had sudden peritoneal hemorrhage six weeks after menstruation. The tube was perfectly normal, but the ovary presented a tumour the size of a walnut, which contained a fœtus twelve millimetres long, and a syncytium certainly developed from the fœtal ectoblast and not from the Graafian follicle. The next case was that of Croft, with the placenta in the ovary at the fourth month.[5] The ovary of the right side was replaced by a sac with a short pedicle containing a fœtus, the wall of the sac containing follicles, and the Fallopian tube patent with a normal mesosalpinx. The fœtus was of about four months' growth. Then a clear case was shown by Dr. G. P. Anning and Mr. H. Littlewood.[6] The patient was a

[1] *Lancet*, 1901, ii. [2] *Ibid.*, 1899, i. 1709.
[3] *Brit. M. J.*, 1901, ii. 964. [4] *Ann. Gynéc.*, Paris, 1899, 537.
[5] *Tr. Obst. Soc.*, 1901, xlii. 316. [6] *Ibid.*, 1902, xliii. 14.

young nullipara, who had been married five months, and was operated upon fourteen days after the last menstruation. A small ovum was found, the size of a Barcelona nut, which fitted into a firm envelope of laminated clot. This in turn fitted exactly into a recently ruptured cavity in the ovary, and the corresponding tube was normal. The specimen was presented to the Museum of the Royal College of Surgeons. Lastly, Mr. Mayo Robson has recorded a case of a young woman who was seized with sudden pain six weeks after her last menstruation.[1] A cavity was found in the ovary into which the ovum exactly fitted. From the report of Mr. Shattock, the corresponding tube was firmly adherent to the bottom of the pouch of Douglas. In the cavity of the ovary there was a recent rent three-quarters of an inch long. Into this there fitted a villous chorional sac, and a minute embryo four millimetres in length was connected with it. From the position and condition of the corresponding Fallopian tube Shattock concludes that the spermatozoa reached the ovary through the tube of the opposite side.

It will thus be seen that, since attention was specially directed to the subject, at least five authentic cases have been described within recent years. Hitherto the exigencies of the moment have prevented observation of what is probably not an uncommon condition, although formerly denied by the highest authorities.

* * * * *

It is now some twenty years since Hahn first performed **nephropexy**. Owing to imperfections in operative procedure, the earlier operations were very defective and were for long decried by many surgeons of note; but owing to recent improvements in technique the kidney can be securely fixed in suitable cases, and with a small mortality of something like 2 per cent. The original operations were defective chiefly from the fact that the proper capsule of the kidney alone was secured, with at most the inclusion of a small portion of the cortex. The most thorough operations of to-day include the stripping of the true capsule from a considerable portion of the kidney, or of its irritation to such an extent that it becomes covered with granulation tissue and so thoroughly incorporated with surrounding tissue during repair. As an example of the former there is the method of Edebohls referred to below, and as illustrating the latter one may refer to six cases in which I have freely applied strong carbolic acid to the surface of the kidney in conjunction with suture or gauze packing.[2]

The recent paper of Edebohls is a particularly valuable contribution to surgery, for besides its exhaustive treatment of nephropexy in general, it contributes several new ideas in technique.[3] It is hardly necessary to state that Edebohls is

[1] *Brit. M. J.*, 1902, i. 1477. [2] *Lancet*, 1902, i. 1822.
[3] *Ann. Surg.*, 1902, xxxv. 137, *et seq.*

a strong advocate for removal of the vermiform appendix when the kidney requires fixation—it is a hobby which he and a few other surgeons ride. But the vagaries of the appendix do not satisfy him, and the advantages of simultaneous exploration of the biliary region are stated as arguments for the method of operation which he proposes. He states: "In four successive nephropexies performed by the writer, lumbar exploration demonstrated the presence of gallstones in two of the patients, and of chronic cholecystitis and pericholecystitis in the other two." It is open to question, however, whether symptomless abnormalities demand surgical treatment as a rule.

The writer states that, with few exceptions, all operators by the lumbar route employ the classical incision running along the outer margin of the erector spinæ external to its sheath, separating the fibres of the latissimus dorsi, and defining the outer muscular edge of the quadratus lumborum, the remainder of the deep structures being teased through. If there is difficulty from the proximity of twelfth rib and ilium, the writer advocates the nicking of the outer margin of the quadratus lumborum near the crest of the ilium. It is then never necessary to make a trap-door incision. One conspicuous advantage of this incision is the avoidance of the ilio-hypogastric and ilio-inguinal nerves in the section, and the absence of consequent dysæsthesia.

In the preparation of the kidney for fixation, Edebohls makes it a rule to remove the fatty capsule in its entirety, and holds the view that it cannot be utilised as an aid to fixation; but he strips the true capsule from the cortex and utilises it in the fixation, passing the sutures through it and not through the parenchyma.

One of the features of the method of Edebohls is the kidney air-cushion, which presents several advantages. The lateral posture, pillows, and the hands of an assistant are thus dispensed with. It is merely an inflated india-rubber bag of suitable size placed beneath the abdomen of the patient, who is prone. The field of operation is thus rendered convex, the last rib separated from the crest of the ilium, and the kidney tends to be forced upwards into the wound. Owing to the elasticity of the pillow, respiration is easy although the patient is prone and the delivery of the kidney is largely automatic. Another principle in the writer's operation is the fixation of the kidney squarely in the loin, and so situated that the middle part of the kidney fills the lumbar space, the upper part of the kidney projecting as far upward beneath the rib as the lower pole reaches downward below the level of the crest of the ilium. This is somewhat different from the site usually adopted for fixation, and I am of opinion that it is open to the objection that the kidney in such a position is often tender.

The following is a summary of the author's procedure:—The patient is placed prone on the kidney air-cushion and a

straight incision is made along the outer border of the erector spinæ. The fibres of the latissimus dorsi are then merely separated and the sheath of the erector spinæ is left unopened. The transversalis fascia is split to expose the peri-renal fat and the ilio-hypogastric nerve is drawn aside, or else temporarily divided. The sheath of the quadratus lumborum is freely opened, exposing the outer border of the muscle, and the kidney is then freed and delivered with its fatty capsule, which is then entirely removed. By an additional opening in the peritoneum the appendix can then be inspected and dealt with, as well as parts in the neighbourhood of the gall-bladder.

The next stage is the denudation of the renal cortex by nicking the true capsule, dividing it along the convexity on a director, and reflecting it forwards and backwards from the outer half of the kidney, excising a portion of the capsule if redundant. Then four suspension sutures are passed through the reflected fold of capsule in such a manner that the eversion of its edge is maintained, a Hagedorn needle being used for the purpose. The kidney is then returned and each pair of suture-ends passed through the parietes are tied together. The separated fibres of the latissimus dorsi are next united; then the skin is sutured. The dressings are left unchanged for a week. The writer adds a table of 846 operations by the best operators, giving a mortality of nearly 2 per cent. As a proof of the permanency of results, Edebohls states that the kidney so fixed in the loin can never be returned by manipulation to its normal position beneath the diaphragm; and a second exploration in one case at the patient's request showed that the kidney could not be displaced without fracturing its substance. The fact, however, that the patient had desired a second operation suggests that the results were not altogether satisfactory. Anyway, the contribution of Edebohls is a very complete and valuable one.

T. CARWARDINE.

DERMATOLOGY.

The Relative Inefficiency of Cacodylates as Therapeutic Agents is the title of a paper communicated by Dr. T. R. Fraser.[1] It appeared to him that if cacodylic compounds are incapable of causing toxic effects when given in quantities greatly superior to the quantities of ordinarily employed arsenical compounds, they must, to a corresponding degree, be pharmacologically inert and therapeutically inefficient. To test this opinion Dr. Fraser administered cacodylate of soda and cacodylate of iron in several cases of chorea and other diseases, and came to the conclusion that the arsenic in cacodylic acid and in its salts is almost inert when regarded either as a therapeutic or as a poisonous substance; but that when certain bases having therapeutic properties, such as iron, are united with cacodylic

[1] *Scottish M. & S. J.*, 1902, x. 385.

acid, these bases are capable of producing their special curative effects.

Dr. Fraser found that the well-known reactions of the ordinary arsenical compounds are not displayed by cacodylates, while the reactions of the bases referred to can readily be produced. He shows that cacodylates, though arsenate compounds, fail to give the characteristic reactions of sodium arsenate, and that in marked contrast with sodium arsenate the cacodylate of soda also fails to produce a deposit of arsenium upon copper when it is subjected to Reinsch's process. On the other hand, cacodylate of iron gives the numerous ordinary reactions of all solutions of ferric compounds. As contrasted with the iron, the arsenic is shown to be so firmly united with other elements in the cacodylic group as to be incapable of disassociation by chemical reagents of much greater activity than those which it could encounter in the living body. Dr. Fraser therefore suggests that when a cacodylate is administered the arsenic remains locked up in it, in so far as its pharmacological energies are concerned, and is therapeutically inert; and the arsenic probably passes through the body without undergoing disassociation from methyl. He goes on to say that clinical observations and chemical analyses agree in showing that when a salt of cacodylic acid is administered to a patient it is absorbed and is eliminated; but with the arsenic which it contains so firmly combined with the other cacodyl constituents that it does not become disassociated, and is therefore incapable of forming any compound in the body that can produce the well-known pharmacological activities of the compounds of arsenic usually employed for therapeutic purposes. He considers that the compounds of cacodylic acid may thus be given in massive doses, and by them arsenic may be introduced into the body in quantities which are large, and even enormous, relatively to the quantities in the commonly used compounds of arsenic; in the latter this element, however, is not so stably fixed as to be incapable of forming new combinations which produce well-known and powerful effects. He thinks cacodylates may be likened to certain of the cyanogen compounds, such as the ferro- and ferri-cyanides, in which cyanogen is also so locked up that enormous quantities may be given without causing any cyanogen action, or any manifestation of the deadly energy of hydrocyanic acid and the majority of the cyanides.

Dr. Fraser concludes his paper by regarding cacodylates as useless therapeutic agents in so far as they are compounds of arsenic; and besides this he considers they are inconvenient substances to administer to patients, as when given by the mouth they are liable to induce disorders of the alimentary canal, such as nausea, vomiting and diarrhœa. Given by either subcutaneous injection or by the mouth, the highly obnoxious garlic-like odour of cacodylic oxide is frequently produced.

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The Cocci in Skin Diseases.—Sabouraud, of Paris,[1] said, at the annual meeting of the British Medical Association at Cheltenham, that he considered there were three bacteria of the "coccus" group which were mainly concerned in the production of skin diseases:

1. A streptococcus, which was identical with the streptococcus of Fehleisen, and capable of showing wide variations of virulence. It was the "specific organism" of erysipelas and the allied diseases, and was concerned in the production and establishment of the phenomena of elephantiasis. He thought the specific lesion of the streptococcus in the skin proper was the "phlyctene," or intra-epithelial vesicle or bulla of true impetigo—the impetigo of Tilbury Fox,—the disease which subsequently formed the coin or seal-like crusts seen on the face of children. He also considered that this streptococcus was the origin of certain lesions producing superficial ulceration and crust formation, and that it was also a complicating factor in many inflammatory affections of the skin.

2. The staphylococcus pyogenes aureus of Rosenbach. This organism was concerned in the production of the majority of cutaneous suppurative diseases, in carbuncle and furuncle, in many cases of acne, especially where necrosis of tissue was noticeable, as in acne varioliformis, in forms of suppurative folliculitis, &c. It was also the special cause of that form of impetigo known as the impetigo of Brockhart, in which the pustular lesion commenced as an inflammation in or surrounding a hair-follicle.

3. A coccus growing in greyish-white cultures, which he preferred to designate as the staphylococcus cutis communis. This coccus was found in great numbers on the skin, and must be considered as the cause of the mildly inflammatory affections accompanied by desquamation, such as are typified by pityriasis capitis, seborrhæa corporis, the circinate seborrhœic dermatitis of English writers, and was identical with the coccus described by Unna as the morococcus, and claimed to be the specific organism of nearly all forms of eczema. With this latter hypothesis Sabouraud entirely disagrees.

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Some Observations on the Pathology and Treatment of Corns.—Under this title Mr. E. Harding Freeland[2] gives some useful information, especially from a surgical standpoint. He says that one of the first changes observed is a proliferation of the cells of the stratum mucosum over a limited area—a change, he thinks, brought about by nervous influence, and the result of a stimulus directly applied from without to the nerve terminals which govern the nutrition of the part affected. As successive layers of cells are added from below more quickly than they are

[1] Reported in the *Brit. J. Dermat.*, 1901, xiii. 348.
[2] *Brit. M. J.*, 1901, n.s., x. 431.

shed on the surface, the superficial cells become heaped up into a mound-like eminence which projects above the normal level of the skin. As the summit of the mound is the oldest, most highly keratinised, and consequently most brittle part, and owing to the fact that its exposed position renders it more liable to attrition, this part of the corn soon becomes detached, breaking off short just below the level of the surrounding tissue, and leaving a shallow, cup-like depression with a roughened surface. The result of this change is, that the chief pressure is shifted from the centre of the corn to the margin of the cup-like depression.

As palliative treatment he recommends Unna's plan. A ring of glycerine jelly is painted round the circumference of the corn so as to form a raised rampart. A piece of salicylic plaster mull is then cut to the size and shape of the central depression, and applied to the surface of the corn. This is then covered with a layer of glycerine jelly, and before it sets a pad of cotton wool is applied to the surface. This process is repeated as often as is necessary, until the horny layer of the corn separates and is cast off. The method of removal in favour with chiropodists is to introduce an instrument at the groove which runs round the margin of the corn, and by making this penetrate towards its central axis with the exercise of a little manual dexterity the horny part of the corn can be easily separated from the parts beneath. As Mr. Freeland says, a corn which has been partially extracted by this method corresponds to breaking the main stem of a shrub short off just below the surface of the ground. The removal of the growth is only partial; the essential part of the corn—the part from which it springs—being left behind.

Mr. Freeland goes on to say that any method of treatment to be curative must secure the removal of the entire corn, together with the underlying bursa, if a bursa is present. He renders the skin insensitive by the application of ethyl chloride, and 5 minims of a 4 per cent. solution of eucaine is injected into the subcutaneous tissue beneath the corn. Under strict antiseptic precautions two hemi-elliptical incisions meeting at their extremities are made through the skin around the circumference of the growth, care being taken that they penetrate well into the subcutaneous tissue. The whole corn is now dissected out, and the edges of the wound brought together in the usual way.

Mr. Freeland thinks that if practitioners of medicine would take a more intelligent interest in the study of these little tumours, the treatment of which legitimately belongs to the domain of surgery, these cases would be gradually lifted from the depths of charlatanism into which they have long since subsided. He says the moral is obvious—both the profession and the public would be the gainers.

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The Professor of Pathology at the Army Medical School at Netley has been inoculating patients suffering from furunculosis, sycosis, and acne with a staphylococcus vaccine.

He concludes that much that is of value can be learned upon this subject by a careful consideration of Koch's tuberculin inoculations and by a comparison of these with the inoculations of staphylococcus vaccine. In each case a bacterial vaccine is, for therapeutic purposes, inoculated into patients already the subject of a corresponding infection. In each case, as the result of the inoculation, an acute inflammatory reaction is set up at the seat of the infection. In each case, again as a result of the inflammatory reaction in question, the nidus in which the bacteria are lodged is broken up.

At this point Professor Wright says an all-important difference emerges. In the case where the localised inflammation process is due to a staphylococcus infection the breaking up of the nidus has involved, so far as has hitherto appeared, a destruction of the bacteria which have been affected. In the case of a tubercle infection the destruction of the nidus has, on the other hand, been shown to be compatible with the continued survival of the tubercle bacilli. The probable cause of this difference is thought to be owing to the fact that the tubercle bacillus possesses, as compared with the staphylococcus, an infinitely greater capacity for maintaining its vitality in the interior of the organism. It follows from this that there is much less chance of new localised foci of infection, or, in exceptional cases, of generalisation of infection with a staphylococcus vaccine than with tuberculin inoculation.

In applying an inoculation treatment to the forms of erysipelas referred to in his paper, it would be necessary to keep in view the fact that the streptococcus possesses, as compared with the staphylococcus, a much greater capacity for generalising itself in the organism. Professor Wright mentions details of inoculation treatment in six patients with good results in five, and concludes by suggesting whether or not any therapeutic advantage could be derived from the inoculation of the appropriate bacterial vaccine into patients suffering from chronic "surface-invasions." He says there would be opportunity of applying such inoculations in connection with the treatment of bronchitis, ozœna, gleet, leucorrhœa, and those forms of bacteruria which depend upon a bacterial invasion of the mucous membranes of the genito-urinary tract.

HENRY WALDO.

[1] *Lancet*, 1902, i. 874.

Reviews of Books.

Memoirs and Letters of Sir James Paget. Edited by STEPHEN PAGET, one of his sons. Second Edition. Pp. 438. London: Longmans, Green and Co.

This book is founded to a great extent on some records of his life written by Sir James Paget himself, with a commentary on these memoirs, and an account of his later years written by his son. To these are added numerous letters, chiefly to members of his family, which are inserted in chronological order, and give a very good idea of his thoughts on many subjects. Reproductions of portraits and photographs, especially a good photogravure plate of the famous picture of Paget by Sir John Millais, enhance the value of the book.

The actual autobiography is in many respects the most interesting, possessing the charm and clear literary style of all Sir James's writings, and giving a vivid picture of his boyhood and the struggles of his youth and early manhood. What a life of high aims and strenuous endeavour he depicts! Through poverty, disappointment, deferred hope, to the well-earned reward of success and fame!

One is much struck with the immense capacity for work, and of work requiring untiring patience and hope, Sir James Paget must have possessed, and one realises how impossible such a career would be without splendid physical as well as mental endowments. These he inherited from both his parents. "I can boast," he says, "of being, in the best sense, well-born." From his father he obtained neatness, punctuality, and business habits; from his mother "activity and industry, and admiration for all that was beautiful in art and nature."

The story of his life is told in simple unpretentious language, and some attempt is made to really portray the man himself; but although we learn a great deal about Sir James Paget, it cannot be said that this is a biography of the very best sort—that sort, namely, which by many graphic touches and minute description of dress, manners, conversation, &c., gives us a living picture which we learn to know. But it is, nevertheless, well written and well compiled, and we are enabled to follow with admiration the onward progress of a great man. One cannot, indeed, sum up his life better than by quoting the last sentence of the first part of this book: "But all his life he moved upward; from the lower level of the early years, and the limited range of vision, to the time when he attained success in practice, and could see all round him; then, higher still, having left success behind him, in the increasing loneliness of old age; and last of all, in the time of utmost infirmity, highest of all."

Selected Essays and Addresses by Sir James Paget. Edited by STEPHEN PAGET. Pp. viii., 445. London: Longmans, Green and Co. 1902.

This collection of essays is intended to be "welcome to men who knew him." His earlier lectures are not included, but the selection is such as any one of his pupils might wish to have in honour of him and for love of him. They were given on various occasions, the most noteworthy perhaps being the presidential address at the opening of the International Medical Congress of 1881, which made a profound impression on the large and brilliant audience presided over by the Prince of Wales. None of the essays can be considered out of date; the subjects are for the most part perennial in their nature, and the writer's views would to the last have been the same as when he first penned them. Anything written by such a master of the English language cannot fail to be of lasting service. It is gratifying to us to observe what is said of Paget by Da Costa, who writes that "he spoke frequently and always well. . . . He could speak impromptu with a grace and a beauty which charmed his audience. His lectures were intellectual treats. . . . His more finished addresses . . . were delivered with such ease that they gave the impression of unstudied force rather than of careful elaboration." He being dead yet speaketh.

The Climates and Baths of Great Britain. Vol. II. Pp. xvi., 628. London: Macmillan and Co., Limited. 1902.

This is a continuation of the work undertaken by the Royal Medical and Chirurgical Society of London as long ago as the year 1889. The first volume, published in 1895, was reviewed by us in vol. xiv., p. 361; and the second volume completes and concludes the work accomplished by a committee under the chairmanship of Dr. Theodore Williams. It is on the same lines as the one previously issued, and deals with the central and northern portions of England, with London, and also with Wales and Ireland. The climates and health resorts of the various districts have been considered, and the meteorological data from the different stations compared and contrasted. Special attention has also been given to the diseases which prevail in the several localities, and for the treatment of which the different resorts seem especially suited. The volume contains several maps, of which three are coloured—namely, those of England and Wales and of Ireland, both showing elevations, and also the rainfall map of the British Isles.

These volumes give us a carefully prepared and authoritative account of whatever we may wish to know on the climates and baths of our own country, and they show that there is little need to go abroad in quest of others.

As regards our own locality, we learn that (vol. ii, p. 152)

"In Clifton then, the important residential quarter, the air is stimulating, the rainfall for the West-country not excessive (33.87 inches for the 45 years ending 1897), while humidity is greatly diminished by the configuration of the ground, which allows of admirable natural drainage. It can therefore be truly described as most healthy—an important matter when the number of its schools and scholars is considered."

An Experimental and Clinical Research into certain Problems relating to Surgical Operations. By GEORGE W. CRILE, M.D. Pp. 200. Philadelphia: J. B. Lippincott Company. 1901.

The problems relating to surgical operations dealt with in this book are very important ones, and the investigations carried on by the author have thrown much light on them. All Dr. Crile's statements are substantiated by facts, and are therefore of great value to the surgeon, and the perusal of the book will give valuable hints for operative work. With regard to the question—which is of so much interest at the present time—as to the value and safety of anæsthesia produced by injection of a solution of cocaine into the subarachnoid space, several very important facts are given. The effect of cocaine when injected into a nerve is fully considered, and suggestions for its use in surgery are made, illustrated by cases in which this has been done with success. In operating for large tumours or infiltrating malignant growths of the neck, it is sometimes an important matter to decide whether temporary closure of the carotid artery can be safely made, and whether, if the vagus nerve is involved in the growth, a portion of it can be safely excised. These are problems on which the author gives us valuable information. We very strongly commend the scientific character of the work and the clear style of the author.

A Manual of Surgical Treatment. By W. WATSON CHEYNE and F. F. BURGHARD. Part VI., Section I. Pp. 479. London: Longmans, Green and Co. 1902.

In reviewing this part we need not again refer to the general scope and merits of the work as a whole. This volume is a very important one, as it deals with subjects very frequently under the care of the surgeon, and considering that so many important matters are discussed in one volume, they are as fully considered as the space could possibly allow. The operative treatment of cancer of the tongue and throat is dealt with in a very useful and thorough way, as might be expected from the work which one of the authors has done in connection with

the study of this subject. The question so largely discussed at the present time—when to operate in appendicitis—is also fully considered. We are sorry the authors still try to classify cases of appendicitis on a pathological basis for clinical indications, but we are glad to see such an attempt abandoned at times —for instance, when they write of "the treatment of the more severe cases." Who shall say what the exact condition of the appendix is in such? We would also ask, What help does it give us at the bedside to call any case a "fulminating" one, as a particular type requiring special treatment? The great practical difficulty is, to define when a case is severe enough to require operation. In "severe" cases the authors advise operation at once if seen within the first twelve hours; if seen later they advise waiting for signs of suppuration, but exactly what those signs are we are not told, and really could not be. We are not yet in a position to rely on blood counts, though we may begin to try what help they can give in diagnosis. We notice that the authors advise removal of the appendix after every severe attack, even if an abscess has formed. This has been urged by other surgeons; but they advise it for an additional reason which we do not remember to have seen advanced before. They think the scar in suppurating cases so likely to yield that the appendix should be removed and the scar excised at the same time to prevent further trouble from the appendix, and also to prevent the development of a hernia. It seems to us, however, very doubtful if the appendix needs removal after every suppurating case, for in the great majority of these cases it causes no further trouble.

In operating for intractable gastric ulcer, the authors are in favour of excising the ulcer when possible; but we are rather surprised to notice gastro-enterostomy or pyloroplasty recommended in addition to this, and cannot help thinking that too much importance is attached to possible spasmodic contraction of the pylorus.

We have been struck with the excellence of the pictures which illustrate the chapters on abdominal surgery; for we have not seen such good illustrations of abdominal operations in any other book. It seems rather curious to find prescriptions containing bismuth and carbonate of soda for gastric ulcer in this surgical work. We feel inclined to remind the authors that physicians have not yet entirely retired from the practice of abdominal medicine, though their work is passing very largely over to the surgeons. Even if surgeons are not allowed to prescribe bismuth and soda, it must be remembered that the diagnosis of all forms of abdominal disease is really of greater importance to the surgeon, for he has to take the responsibility of advising as to the desirability of operation—a responsibility far greater than that incurred in prescribing drugs, or even in washing out the stomach. We regard this volume of the manual of treatment as one of the most useful of the series.

Experimentelle und Kritische Beiträge zur Händedesinfectionsfrage. Von Dr. RICHARD SCHAEFFER. Pp. 110. Berlin: S. Karger. 1902.

No more important questions can engage the attention of surgeons and obstetricians than those relative to the disinfection of the hands. The book before us is a notable contribution to the literature of the subject, and deserves most attentive study.

It may be taken as a truism that there are no means by which the hands can be rendered absolutely germ-free. The author's object in this work has been to ascertain to what degree and by what means the ideal condition of absolute sterility of the hands can be most nearly reached in practice. He records the numerous bacteriological investigations he has made in the attempt to solve the problem, and these investigations appear to have been carried through with every precaution against error that ingenuity could suggest. In addition the work of others in the same field of research is freely criticised.

As a result of his labours, the author declares that the hot water and alcohol method of disinfection of the hands of Ahlfeld gives by far the best results. It is time, he says, to give up the idea that any antiseptic solution as ordinarily used can be relied upon to effectually disinfect the hands. The value of alcohol depends not upon its bactericidal power, but upon its power of cleansing the skin and removing fat and epithelium. After cleansing in alcohol the hands should be washed in sterile fluid to remove the alcohol and the germs it has extracted.

In greater detail the method of disinfection advocated by the author consists: Firstly, in washing the hands for five minutes in very hot water (50° C.), using for the purpose soft soap and a sterile brush and changing the water several times; secondly, in rubbing the hands vigorously with a sterile towel; thirdly, in brushing the hands in alcohol for from three to five minutes and changing the alcohol at least once during the process; fourthly and finally, in rinsing the hands in 1 in 1000 perchloride of mercury solution. Next in merit to the method described is the soap and spirit method of Mikulicz.

Tuberculosis, as a Disease of the Masses, and How to Combat It. By S. A. KNOPF, M.D. London: Rebman, Limited. 1902.

This essay, of 76 pages, received the international prize awarded by the International Congress to Combat Tuberculosis, which met at Berlin, May, 1899. Its motto was as follows:—To combat consumption as a disease of the masses successfully requires the combined action of a wise Government, well-trained physicians, and an intelligent people.

The English edition has been adapted by Dr. J. M. Barbour, of Swanage.

Stricture of the Urethra and Enlargement of the Prostate. By P. J. FREYER. Second Edition. Pp. vii., 132. London: Baillière, Tindall & Cox. 1902.

We reviewed the first edition of this book, and observe that our comments have received notice. The alterations in the present edition only affect portions dealing with affections of the prostate. With regard to prostatectomy, he states that later experience has induced him to modify very materially many of the views put forward in the first edition. Though he classes McGill's operation among the "partial" ones in contradistinction to his claim to "total" prostatectomy, yet he states that in performing the former he has removed both lateral lobes projecting into the bladder, the whole weighing 3 ounces, the patient gaining complete control over micturition. In a few of his cases of the McGill operation, he says expulsive power was not regained "owing to the existence of complete atony of the muscles of the bladder." But, later on, when advocating his claim to the originality of "total" extirpation, he states, with regard to atony of the bladder, "that no such condition exists, even in the most advanced instances of the disease."

We owe much to Mr. Freyer for his writings upon the anatomy and surgery of the prostate, and chiefly the fact that by aid of the finger in the rectum the prostate may be removed as a whole instead of by *morcellement*, although we fail to see that by the latter the operation need be any the less total in its completion.

Golden Rules of Diseases of Children. By GEORGE CARPENTER, M.D. Pp. 101. Bristol: John Wright & Co. [1901.]

This book shows a thorough knowledge of diseases of children both from the clinical and pathological point of view, as well as an intelligent grasp of important facts. One cannot glance at any page without having some point of value impressed upon the mind. In these days of superabundance of medical literature such books fill a useful place. They bring to the surface what the practical wish to know.

B. Bradshaw's Dictionary of Bathing Places and Climatic Health Resorts. Pp. xl., 372. London: Kegan Paul, Trench, Trübner & Co. 1902.

The invalid going to a foreign Spa will do well to study this volume before he makes his choice. It gives him much useful instruction, and every effort has been made to eliminate errors.

The volume contains all necessary information, except the invaluable and most interesting time table bearing also the name of Bradshaw.

Aphorisms, Definitions, Reflections and Paradoxes — Medical, Surgical, and Dietetic. By A. RABAGLIATI, M.D. Pp. xiv., 291. London: Baillière, Tindall and Cox. 1901.

"I dedicate these thoughts," says the author, "resulting in an attempt to simplify the Theory and Art of medicine, to my colleagues of the Medical Profession." This "consummation devoutly to be wished" is, however, not attained to our satisfaction. We begin, in the preface, to be discouraged by reading that we seem no nearer conclusions as to the causation of diseases than we were 2,300 or 2,400 years ago, and soon come to think that this must be so; for we are told that "blood poisoning and septic action in wounds depend more on the state of the patient than on what is done to him at the time of operation"; that "the presence of dropsy must be taken as evidence of excess of lymph in the body, therefore of excess of chyle, and therefore of excess of food"; that "inflammations are the states of the body which result when it reacts against inorganic irritants like cold, heat, wetness, dryness, fatigue, anxiety, and the like," &c. The question of the hereditary transmission of disease is settled offhand: "A child of eight years of age, the son of a drunkard, was found after death to have a hobnail liver." All this, of course, may "simplify" the art of medicine; but this is carried still further when we are told, in aphorism 266, "To the man who knows better, therefore, it is disgraceful to have influenza and pneumonia, or influenza and marked brachycardia!" How many of us must be in disgrace!

Perhaps, however, the summit of "simplification" is reached on p. 147, where the author lucidly remarks: "The states both of *strictum* and *laxum*, both of *τάσις* and *χάλασις*, both of shrinking and swelling, both of izanism and œdanism, are induced by *contraction* either of one set of elements or of the other."

Even such ailments as "corns" are not forgotten: "If therefore you suffer from corns . . . these things are marks of poly-siteism and pollaki-sileism" (p. 185). It may be explained that pollaki-sileism is not too much dancing, but merely means eating too often. Indeed, simple words are avoided as much as possible; for example, on p. 186 is a description of what sounds like typhoid fever. It is called *hæmatitis*, and it is pointed out: "In this state anæmic (triphthæmic or catatribæmic?) women become violently feverish [&c.]."

All the paradoxes and aphorisms depend on the assumption that nearly every disease is caused by injudicious diet; and it is perhaps a good thing to have someone who will preach against over-eating and over-drinking, even if the sermon is delivered in the quaint and exaggerative manner of this book.

A Treatise on Plague. By Major GEORGE S. THOMSON and Dr. JOHN THOMSON. Pp. xvi., 299. London: Swan Sonnenschein and Co., Lim. 1901.

La Peste Bubonique dans la République Argentine et au Paraguay Épidémies de 1899—1900. Rapport présenté au Département National d'Hygiène par les Docteurs LUIS AGOTE et A. J. MEDINA. Pp. xxv., 299. Buenos Aires: Félix Lajouane. 1901.

The first of these books contains a quantity of valuable information about plague as it has appeared in India. The authors contend that the chief conditions favouring "precipitation and propagation" of plague are, in order of importance, (1) want of fresh air, (2) overcrowding, (3) filth. They consider that "the only reliable measure is the demolition of insanitary dwellings in the crowded and filthy quarters of our towns and their reconstruction on improved sanitary principles, and a system of skilled supervision by a reliable staff of sanitary officers and subordinates." They do not hesitate to denounce other methods which have been employed or recommended in unsparing terms. Thus they say: "First it was the use of the whitewash brush, now the abuse of the rat. Imbecility could hardly go further or show greater impotency," &c. No doubt improved sanitation still requires energetic advocacy, and nowhere more than in the crowded poor quarters of Indian cities; but we do not think that any scientific cause is advanced by polemics of this kind. The authors would have done better to confine themselves to bringing forward conclusive evidence that their view that want of free supply of pure air is *the* factor in the spread of plague. They give an account of plague prophylactic inoculation, and say with regard to it: "We are convinced of the protective power of Professor Haffkine's prophylactic inoculation. We are of opinion that of all the temporary measures for combating the plague known up to now inoculation is the most reliable and safe measure." But they add that it can never be the sole remedy against plague, and by leading to a sense of false security it may interfere with the abolition of the disease by postponing the carrying out of the more drastic and permanently efficacious measures. An account is given of an epidemic in Satara City, and a valuable analysis of the reports of the Parel Hospital. The book opens with an historical retrospect of the disease which is marred by the introduction of irrevelant matter. Indeed, the whole work suffers from undue redundancy, discursiveness, and want of arrangement, which makes it somewhat difficult reading. Those however who can get over these faults and also the polemical manner in which the authors urge their views against the opinions of others, will find that the book contains much matter of interest.

The second work is an interesting and well-written account of the plague in the Argentine Republic and in Paraguay. The clinical descriptions are clear, and help one greatly in forming a mental picture of cases of the disease. In Paraguay, as in other epidemics, the progress of the disease was at first slow and the early stages benign. In the outbreak at Rosario we notice the early and probably inevitable mistakes in diagnosis, and the reluctance to admit the existence of plague in the town. In all these points we are reminded of the story of the Great Plague in London as given us by Defoe. When the disease reached Buenos Ayres the authorities there profited by the errors of the other towns, and prompt measures were taken against it with great success, and to this happy result the good sanitary state of the city seems to have largely contributed. The authors bring forward evidence to show that recrudescences of plague occur when the two conditions of great dryness of the atmosphere and a moderate temperature concur. Both cold and excessive heat are inimical to the spread of plague. Their observations emphasize the importance of the rat in spreading the disease. An appendix gives full reports of the clinical symptoms and *post-mortem* findings in ninety cases. The book will well repay perusal.

Handbook of Bacteriological Diagnosis. By W. D'Este Emery, M.D. Pp. xi., 215. H. K. Lewis. 1902.

This book aims at supplying to the practitioner the means of making bacteriological examinations in such cases where they may be necessary for purposes of diagnosis. It also contains useful information with regard to the collection and examination of certain morbid materials for transmission to the laboratory, rules for the examination of the blood, for the detection of certain hair parasites, and the making of sections. The directions given are precise and clear, and are such as can be carried out with the minimum provision of laboratory accommodation. Here and there, however, procedures are described which, if followed out, would undoubtedly result in erroneous conclusions, as when in staining for tubercle bacilli the student is directed to keep the film in 20 per cent. sulphuric acid for "three or four minutes"; or when in performing Widal's test he is directed to make his typhoid emulsion with *water*. In the one case the probability is that the bacilli would be decolourised, and in the other the water mixed with the blood might give rise to a spurious clumping. We should, too, strongly advise the student not to follow the directions of the book and suck up with the mouth the contents of a malignant pustule into a pipette.

The Pocket Gray. By the late Edward Cotterell. Fifth Edition. Edited by C. H. Fagge, M.B. Pp. 269. London: Baillière, Tindall & Cox. 1901.—As the title is intended to

imply, the dimensions of this volume are such that it may be carried in the pocket. The pocket used must be a coat-pocket to avoid discomfort, and to enable the bearer to bring the book to the light of day easily and therefore frequently. That a fifth edition of this *vade mecum* has been required argues well for its popularity. It is certainly a *multum in parvo*. The condensation of the information given is so great that any prolonged attempt to read it may be expected to produce fatigue, and to lead to the reposition of the volume in the pocket from whence it came. We consider the book is well adapted to play the part of a refresher to the fading anatomical memory—and who is not aware of the ineradicable tendency of the anatomical memory to fade? There is no royal road to learning, but the way of repetition is a good one. Such a book as this facilitates repetition. It is also handy for rapid reference. If not used to the exclusion of larger works, we can emphatically recommend it to those who have to read anatomy while they run.

The Medical Annual. Bristol: John Wright & Co. 1902.—This is the twentieth year of issue of the *Medical Annual*, and the publishers state that the increased demands of their readers have led them to gradually increase the size of the volume, so that it is now three times as large as at first. It has been found that the general practitioner of to-day demands information on the very latest questions of medical science, that he is even interested, for example, in the details of operations which only specialists are likely to be called upon to perform. Part I. of the *Annual*—"The Dictionary of Materia Medica and Therapeutics"—is a review of therapeutic progress in the year 1901, and has been written by Dr. William Murrell. Prof. McFarland, of Philadelphia, assisted in writing the valuable article on toxins and antitoxins in this portion of the book. The major part of the volume is the dictionary of medicine and surgery, and the various articles there are from the pens of well-known authors and give much valuable information. They also supply useful references. Part III.—"Miscellaneous"—is concerned with sanitary science, legal matters and cases, new inventions, and new pharmaceutical and dietetic preparations, and provides lists of the books of the year, of lunatic asylums, of homes for inebriates, of training and nursing institutions, &c., &c. We are of the opinion that the *Medical Annual* well deserves an easily accessible place on the desk or book-shelf of every practitioner.

Burdett's Hospitals and Charities. London: The Scientific Press, Limited. 1902.—The value of this indispensable guide to the hospitals and philanthropic institutions all over the world is further enhanced in this volume by the addition of a carefully-selected list of sanatoria for the open-air treatment of cases of tuberculosis. Everybody interested in hospital work should make a point of reading the opening chapters of the

book, those on the King's Coronation gift, hospital finance, and the nursing department and its cost.

Transactions of the Royal Academy of Medicine in Ireland. Edited by Dr. JOHN B. STORY. Vol. XIX. Dublin: Fannin and Co., Limited. 1902.—Dr. Sinclair gives a summary of two years of open-air treatment of consumption in Ireland, and many other papers on the usual variety of topics follow.

Medico-Chirurgical Transactions. Vol. LXXXIV. London: Longmans, Green and Co. 1901.—The most noteworthy papers of this volume relate to Phthisis—the one on "Metabolism in Phthisis," by Drs. Goodbody, Bardswell and Chapman; the other on "Wind Exposure and Phthisis," by Dr. W. Gordon. The President's address contains obituary notices of many well-known men, including Dr. William Marcet, Sir William Overend Priestley, Professor George Viner Ellis, Dr. Julius Althaus, Dr. Daniel John Leech, Sir William Stokes, Sir Henry Wentworth Dyke Acland, Bart., K.C.B., and Arthur Symons Eccles. The recent advances in the knowledge of malaria are described by Dr. Patrick Manson, and experiments in the mosquito-malaria theory by Drs. Sambon and Low.

Transactions of the College of Physicians of Philadelphia. Third Series. Vol. XXIII. Philadelphia: Printed for the College. 1901.—This volume is worthy of especial attention for its two memoirs—the one of Sir James Paget, written by Dr. J. C. Da Costa; the other of Dr. Wm. Pepper, by Dr. James Tyson. From the former we quote the following:—"Paget was an Englishman, we are Americans; but we claim a place among the mourners at his tomb, for no fame can rise and burn in England but that it reddens these western skies. The lines which divide us are traced in water; the bonds which unite us are stronger than steel; and such men as Sir James Paget do more to bring nations into brotherhood than do sworn compacts and written treaties. . . . He was a great man, a good man, a gentleman. Peace to his soul."

Annual Report of the Smithsonian Institution, 1900. Washington: Government Printing Office. 1901.—As is only to be expected, a good many of the papers in this volume are retrospects of the progress in the various branches of science during the nineteenth century, all of them written by most distinguished men of science in both hemispheres. It is only when one is brought face to face with facts collected together, as in the present Report, that one realises the enormous strides that have been made in scientific knowledge, and the consequent benefit to mankind, in the space of a hundred years. Take electricity for instance. Prof. Elihu Thomson's paper reads like a romance. Amongst the papers of more interest to the general reader, we would draw attention to Ewart S. Grogan's account of his travels "Through Africa from the Cape to Cairo";

"Nature Pictures," by A. Radclyffe Dugmore; and, more especially, Count D'Hérisson's account of "The Loot of the Imperial Summer Palace at Pekin." This most graphic story is published on account of its "great ethnological value, and for its apparently fair account of the mental processes of the Chinese ruling classes and their attitude towards foreigners, and the frank statement of the uncontrollableness and barbarism into which trained European soldiers may relapse under temptation." The medical papers include Dr. Billing's address on the "Progress of Medicine in the Nineteenth Century"; a summary of our present knowledge of "Malaria," by Dr. Sternberg; and a paper on the "Transmission of Yellow Fever by Mosquitoes," by the same author. We cannot help thinking that a volume containing so much valuable material is worthy of a better and more substantial binding.

Anæsthetics and their Administration. By FREDERICK W. HEWITT. [Second Edition.] Pp. xxiv., 528. London: Macmillan and Co., Limited. 1901.—This book as now published is substantially a new one, and forms a most complete work on everything relating to anæsthetics. In addition to a chapter on the evolution of anæsthetics, we have other chapters treating of such subjects as the properties and impurities of the chief agents used, and the theoretical and experimental physiology of general surgical anæsthesia. Then we have the general principles to be observed in selecting anæsthetics and the various methods of administering them, while full details are added of the individual peculiarities of each separate anæsthetic. The author considers that the much disputed point whether chloroform has or has not a directly depressing action on the heart must now be regarded as settled in the affirmative. He advances so many good reasons for this belief, and so well sums up the Hyderabad controversy, that we have no doubt his decision will meet with the approval of almost all readers. The author considers that, next to nitrous oxide, ether is the safest anæsthetic; and here again he will be approved by most surgeons, although the Scotch school and the followers of Dr. Laurie will doubtless remain of their own opinion still. We are glad to notice that Dr. Hewitt recommends the administration of ether in prolonged dental operations when nitrous oxide is insufficient, but that he considers chloroform the best anæsthetic to use for parturition. He considers the clinical fact established beyond doubt that in surgical practice the best subjects for chloroform are those whose general vital functions are somewhat impaired by illness; while powerful, muscular, young men often take it badly. There has been much talk in some circles lately about septic pneumonia having been set up by the use of foul inhalers, and we notice that Dr. Hewitt is very particular about cleanliness. He says it would be impossible, even were it advisable, to sterilize, after each administration, the mouth-pieces, bags, &c., employed; but it should be a matter of routine to well

wash in hot water everything that has been used. This book is the most complete on the subject of anæsthetics that we have seen. It is full of information and good sense, and we have pleasure in recommending it.

Manipulation (or Massage). By JOHN ANDREW PETERS. Pp. xvi., 159. Newcastle-on-Tyne: Longhurst. 1901.—This thesis is the outcome of twenty years' practical work and observation of "manual treatment" by one who has not aspired to surgery, but has contented himself with the study and practice of massage. He claims that John Beveridge was the pioneer in this work, and that Scotland was its birthplace. Chapters on rheumatism, gout, paralysis, neurasthenia, liver, stomach and intestinal complaints, fractures and dislocations, spinal curvature, sprains, and osseous growths, are illustrated by numerous successful cases. We are not told anything of the unsuccessful attempts. The utility of the finger-tips, guided by education and experience, has long since passed the stage of scepticism and discussion.

Bath Waters: A Rational Account of their Nature and Use, with special reference to Gout, Rheumatism, and Rheumatoid Arthritis. By PRESTON KING, M.D. With an Historical Sketch by [the Rev.] S. BARING-GOULD, M.A. Pp. 128. Bristol: J. W. Arrowsmith. [N.D.]—This is a pleasantly-written popular account of the diseases which are treated at Bath, and of the methods employed there. It can hardly be said to fill a gap or supply a want; for we are already indebted to many successful Bath practitioners for similar works. Whilst the descriptions of treatment may be trusted, the discussions of the pathology of the diseases can hardly be said to be illuminating, nor are the author's conclusions to be implicitly relied on.

Illustrations from "First Aid" to the Injured and Sick. By Drs. WARWICK and TUNSTALL. Bristol: John Wright & Co.—A series of sixteen sheets of diagrams, each 36 by 26 inches, all fixed on a metal roller suitable for hanging on the wall to illustrate "First Aid" lectures. The sheets devoted to anatomy go too much into detail, and in those which show the various methods of using triangular and roller bandages fewer diagrams on each sheet would have given greater clearness. The diagrams will no doubt be useful to lecturers.

Infant Feeding in its Relation to Health and Disease. By LOUIS FISCHER, M.D. Pp. viii., 359. Philadelphia: F. A. Davis Company. 1901.—This is a somewhat elaborate, not to say complicated, treatise on infant feeding; full of references to papers which have been published on the subject. The general impression produced is one of a lack of precise direction as to what to do in any particular case. Thus, under the treatment of rachitis, we find "Rachitic children require milk, meat and eggs; plenty of cereals, like wheat, barley, rice, farina, sago,

oatmeal, hominy; they require butter, and if they will not take butter, then cod-liver oil or liparina; iron will be found valuable, as well as Fellow's hypophosphites; malt extract and ferrum lacticum are indicated." This is in striking contrast to the plain and simple teaching of Cheadle, which is followed with so much success in this country.

A Handbook of Diseases of the Nose and Pharynx. By JAMES B. BALL, M.D. Fourth Edition. Pp. xii., 439. London: Baillière, Tindall and Cox. 1901.—Some necessary changes have been made in this book, particularly in the chapter treating of diseases of the accessory sinuses, but the author has suceeded in presenting, within a moderate compass, such an account of the symptoms and treatment of diseases of the nose and pharynx as will be useful to the practitioner and student. The book is pleasantly written and is sensible and practical, being entirely free from the crazes which so much disfigure the writings and sayings of specialists in nasal surgery.

A Treatise on the Diseases of the Ear. By T. MARK HOVELL. Secord Edition. Pp. xxvi., 808.—London: J. & A. Churchilll 1901.—In our review of the first edition of this work we praised its thoroughness and completeness. Much new matter has been added in the present edition, and many of the chapters have been almost entirely re-written. The work as it now stands is thoroughly modern, and we have pleasure in strongly recommending it to those specially interested in diseases of the ear and in the associated affections of the naso-pharynx. The reader will find a very wide range of therapeutic resources for the relief of ear diseases judiciously noticed, and full directions given for the application of those which have best stood the test of long trial. Unfortunately, success in the treatment of these diseases, as in that of others, is often inversely proportional to the number and variety of the remedies which have been, and are, employed for them. Further progress in the treatment, for example, of chronic adhesive catarrh would seem more likely to be made in the direction of prevention than in that of adding to the number of the already numerous but usually ineffective remedies which are applied after the disease has produced its more prominent ill effects. We have not noticed any mention of the use of the electrically-driven *masseur* in the treatment of the above affection, though the instrument seems to be more efficacious in many cases than the hand instruments. Also the use of Eustachian injections of sterilized liquid vaseline seems not to have been noticed. We cannot agree with the author that "in most cases it is necessary to snare off the posterior extremity of each inferior turbinate body" when post-nasal adenoids require removal. The author states that he has systematically done this for some years past. It is interesting to note that modified Löwenberg's forceps

are recommended for the removal of adenoids, rather than curettes. Of the curettes, Delstanche's modification with the hinged box and hooks which catch the growth is preferred by the author, and he usually operates with the patient supine, and the head, but not the shoulders, raised. In alluding to the value of the detection of a cord-like swelling in the position of the upper part of the jugular vein as a sign of thrombosis of the sigmoid sinus, the ambiguity which often arises from the fact that inflamed glands may cause a swelling in the same region is not mentioned.

Lessons on Massage. By MARGARET D. PALMER. Pp. xiv., 234. London: Baillière, Tindall & Cox. 1901.—This little book is well written, and should prove very useful in the hands of nurses and beginners generally. Although it does not contain anything new or original, it deals with the methods of treatment in a very practical manner, giving a good description of the massage movements and of the exercises suitable in different cases. In this last respect it has an advantage over most books on massage. A large portion of it is devoted to anatomy and physiology. The illustrations are numerous and good.

A Text-Book of Medicine. By Dr. ADOLF STRÜMPELL. Third American Edition. Translated from the Thirteenth German Edition by HERMAN F. VICKERY, M.D., and PHILIP COOMBS KNAPP, M.D. With Editorial Notes by FREDERICK C. SHATTUCK, M.D. Pp. xxii., 1242. London: H. K. Lewis. 1901.—This is the third American, translated from the thirteenth German edition, of this widely-known and popular text-book, which the author tells us has been translated into most European languages and into Japanese. This being the case, it is not necessary for us to say more than that the work has been thoroughly revised, and in the author's words brought "up to the level of contemporary medical thought and knowledge." The work is undoubtedly one of the best text-books on medicine to be placed in the hands of the student or medical graduate; its distinguishing and valuable feature being, perhaps, the consistent keeping in view of the inter-dependence of clinical medicine, pathological anatomy and general pathology. We do not expect from nor desire in a text-book exhaustive descriptions of rare maladies, but no essential points in our present knowledge of disease are omitted from consideration in this volume. The American editor and translators have made valuable additions to the text throughout the book, which appear in nearly every chapter; occasionally, as on the use of stimulants in pneumonia, they do not hesitate to express dissent from the author's views. These additions certainly enhance the value of the book to English readers. A chapter on Plague has also been added by the translators, and in our opinion the favourable estimation in which the book has been held in the past will be maintained in the future by this new edition.

Some Landmarks in the Progress of Medical Science: being the Annual Oration at the Medical Society of London. By F. RICHARDSON CROSS, M.B. Pp. 43. London: Harrison and Sons.—This address, delivered on May 20th, 1901, is an excellent retrospect of some of the great periods and of the principal actors in the course of the development of the science of medicine from the time of the early Egyptians down to the close of the Victorian era. It must have been a Herculean task, but the result is well worthy of the labour and cannot fail to be of interest and profit to those who peruse it.

A Short Practice of Midwifery. By HENRY JELLETT, M.D. Third Edition. Pp. xxv., 533. London: J. & W. Churchill. 1901.—This book is practically a description of the treatment adopted in the Rotunda Hospital, Dublin, and the fact that it has already reached the third edition is sufficient evidence of its popularity. The first two editions of the work were intended to serve as a handbook for nurses, as well as for students and medical practitioners; but we are glad to find that in the present edition this unsatisfactory arrangement has been altered, and a shortened edition prepared for the use of nurses. In the chapter on Obstetrical Diagnosis the author strongly recommends the substitution of abdominal for vaginal examination whenever possible. The importance of asepsis in midwifery is strongly insisted upon. Dr. Jellett condemns routine douching both ante-partum and post-partum, but lays down some very practical rules for its use under special circumstances. In accidental hemorrhage he recommends the use of the vaginal plug in all cases in which the membranes are intact. Although this treatment is at variance with the rules laid down in most text-books, its adoption at the Rotunda has been followed by very good results. The various theories as to the causation of eclampsia are fully considered, and in discussing its treatment he condemns the use of chloroform on account of its liability to cause death from heart failure. In cases where sedatives are necessary he recommends the hypodermic injection of morphia. With the object of removing toxic substances from the blood, he advocates the intra-cellular or intra-venous injection of saline solution. There are two very useful chapters on the management of the infant, and the common diseases to which it is liable. The text throughout is clear, and the value of the work increased by a number of excellent illustrations.

Studies in the Psychology of Sex: Sexual Inversion. By HAVELOCK ELLIS. [Second Edition.] Pp. xi., 272. Philadelphia: F. A. Davis Company. 1901.—We much regretted the original publication of this book through certain channels which later on obtained for it a by no means enviable notoriety, and, no matter what the reason, we are glad to see its second edition issued under more suitable auspices. But it is with distaste that we note in exaggerated form the author's indulgence in

profuse detail where the clinical records are concerned. We do not impugn Mr. Ellis's honest intention to provide us with complete pictures of his cases and to do no more than this, and further we accredit him with the ability born of such true purpose to imbue the reader to no slight extent with his own calm and judicial spirit. Yet, the mass of moral garbage that he has accumulated in the form of case histories is distressing, and we emphatically opine, superfluous. It cannot be admitted that the publication of a veritable host of foul imaginings serves a sufficiently necessary end. Truly, it is the business of an author to examine every detail, marshal every fact, then to obtain for his readers a filtrate of his investigations, but, especially in a subject of this nature, nothing is gained by placing these elaborations before the public unless demanded in direct support of some fact or principle. We see no evidence that such a record as Case 26 for instance, occasioning as it does nearly twelve pages of small type, is justified by its results. It is not to be supposed that the circulation of this book is confined to medical men, nor is there weighty reason why, if conceived permissible for them, it should be prohibited to any reader of maturity and discretion, not prompted to its perusal by a spirit of mere prurient curiosity. But a certain number of copies must find their way into the hands of persons unfit to properly appreciate the contents, and in its present form we consider this likelihood most unfortunate. At the same time to mark our sense of belief in Mr. Ellis's integrity of purpose, we can affirm that had he chosen to eliminate unnecessary clinical description (as we think), and to have expunged a most regrettable appendix in defence of sexual inversion, for which his pen is not responsible, we would have welcomed one work which, amongst many unworthy congeners, advanced in scientific spirit our knowledge of sex psychology.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Second Series. Vol. VI. G—Hernette. Pp 1051. Washington: Government Printing Office. 1901.—Like its predecessors, the present volume bears witness on every page to the painstaking care bestowed on its preparation. It includes 15,589 author-titles, 5,962 subject-titles of books and pamphlets, and 30,561 titles of articles in periodicals. The work is absolutely indispensable to every library, and no praise is too great for it.

Tendencies to Consumption: how to Counteract them. By J. D. E. MORTIMER, M.B. Pp. viii., 138. London: The Scientific Press, Limited. [N.D.]—This is not a record of any original work, but it is a concise summary of the nature of tubercular disorders and of the consequent steps to be taken against their development. It is intended as an aid to the practitioner, rather than for self-glorification, on the principle that directions are likely to be put aside as of little importance

unless some intelligible reasons are given for their enforcement. The author gives very sensible advice on all questions of hygiene relating to the pre-tubercular state.

Elements of Practical Medicine. By ALFRED H. CARTER, M.D., M.Sc. Eighth Edition. Pp. xvi., 590. London: H. K. Lewis. 1901.—There would have been no need for an eighth edition if the book had not proved its adaptation to the wants of the age. Good type, easy to read, condensed and definite in its statements, no diffuse verbosity, and accuracy,—these are qualities which have commended it to the student. The tables of diagnosis are particularly clear and useful; doubtless the therapeutic index is convenient to the uninitiated, but the practitioner should be able to carry principles into practice without the unnecessary burden of a multitude of formulæ.

Golden Rules of Aural and Nasal Practice. By PHILIP R. W. DE SANTI. Pp. 87. Bristol: John Wright & Co. [N.D.]—We question the usefulness of works of this class. The facts are for the most part correctly stated, but they are strung together in a collection of disjointed sentences, which are very unreadable and of very little use for reference.

Pulmonary Tuberculosis: its Prevention and Cure. By CARLO RUATA, M.D. Pp. vii., 143. Bristol: John Wright & Co. 1901.—The professor of Perugia gives an excellent analysis of the anatomical, physiological, pathological, etiological, and therapeutic facts which relate to tuberculosis of the lungs, as a preliminary to an exposition of his belief that the patient does not die of pure tuberculosis, but always in consequence of the infection of the lung lesions by atmospheric micro-organisms, and that the only rational principle by which to treat tuberculosis is the same which guides the surgeon in the antiseptic treatment of wounds. Continuous inhalations form the basis of his treatment, and from these he has obtained good results. He prefers "pure air," obtained by wearing a mask, to the simple open-air method now commonly adopted.

The Cure of Pulmonary Tuberculosis. By Prof. VINCENZO CERVELLO. London: B. & W. Cohen.—This pamphlet of 28 pages is the substance of communications made to the Royal Academy of Medical Science, in Palermo, in April, 1899. It relates to the inhalation of formaldehyde. A medicated atmosphere is obtained by means of a special apparatus called the "Salus Vaporiser," and the substance from which the vapour is derived is called "Igazolo." From these remedies the author has great expectations, but the clinical evidence is not sufficient to form a basis for any deductions therefrom.

A Retrospect of Surgery during the Past Century, being the Hunterian Oration of the Hunterian Society, 1901. By JOHN POLAND. Pp. 97. London: Smith, Elder & Co. 1901.—The many advances of surgery during the nineteenth century are

ably passed in review, and though the limit of a Hunterian oration must necessitate an abbreviated treatment of so wide a subject, the author has maintained a due proportion in its various parts. The pages of this brochure form a fitting commentary to those who unwisely thought with Boyer that "surgery seems to have attained the highest degree of perfection of which it is capable."

Transactions of the Obstetrical Society of London. Vol. XLI. London: Longmans, Green, and Co. 1900.—This volume contains many interesting records of cases and papers. We notice among the curiosities two cases in which tumours were expelled from the uterus during natural labour or removed immediately afterwards. In one case Arnold Lea reported the expulsion of a tumour which, on examination, was reported to be probably an acardiac fœtus in a rudimentary condition. Dakin reported the enucleation of a tumour and its removal from the uterus immediately after labour, which proved to be a fibroid. These cases, although rarities, might give rise to great difficulties and their occasional occurrence should be borne in mind. Dr. Lediard reports the case of a woman who evacuated per rectum the bones of a fœtus of six or seven months developed from an ectopic gestation sac. The gestation seems to have occurred in August, 1893, and bones began to to be passed in September, 1894, the sac being apparently emptied by February, 1895. This case is a striking instance of the resistance to mortality occasionally met with. Dr. John Phillips contributes an interesting case of fatal acute peritonitis, without discoverable cause, complicating pregnancy and labour.

Transactions of the American Association of Obstetricians and Gynæcologists. Vol. XIII. Philadelphia: Wm. J. Dornan. 1901.—The first thing which strikes us in the perusal of this volume is the publication under the above title of such papers as those on gastric ulcer and gallstones. We thought at first that the obstetricians and gynæcologists in America, from long concentration of their attention on diseases of women, had forgotten that these diseases do sometimes occur in man, and had even traced a connection between irregularities of menstruation and the formation of gallstones and the liability to gastric ulcer. But this explanation is clearly erroneous, for on reference to the papers we find that some of the patients referred to were men. The explanation clearly is, that the gynæcologist in America is so largely an abdominal surgeon, that he is apt to forget that he is a gynæcologist at all, and it is quite immaterial to him even of what sex his patient may be. However, the volume contains numerous papers on various diseases of women. We are surprised not to find any on obstetric subjects in the proceedings of a society of both obstetricians and gynæcologists. Many of the papers will prove of interest to gynæcologists. The illustrations are remarkably good.

Transactions of the American Pediatric Society. Vol. xii. Reprinted from *Archives of Pediatrics*. 1900.—It is impossible to touch even briefly upon the numerous interesting papers in these *Transactions*, but a few points of interest or importance may be referred to. In a careful experimental paper upon the pancreatic digestion of casein, Dr. Rachford comes to the conclusion that lime water is of more value than a decoction of one of the cereals in aiding pancreatic digestion. Dr. Fruitnight records a case in which a large post-otitic abscess situated in the left temporao-sphenoidal lobe had been associated during life with amnesic aphasia. Dr. Edward P. Davis considers that the treatment of hydrocephalus by craniectomy is of little value. An epidemic of paralysis in children is recorded by Dr. Dwight Chapin. One child, which died, showed in the spinal cord the characteristic lesions of infantile paralysis, but the majority of the cases completely recovered. In others wasting of some muscles remained. Dr. Chapin thinks that in those which recovered possibly the peripheral nerves suffered, but the spinal cord escaped. A large number of cases of examination of the blood in infancy are recorded by Stengel and White, and amongst other cases of special interest or rarity which are recorded is one of hemorrhage into the suprarenal capsule, by Hamill; one of congenital disease of the left side of the heart, by Cotton; and a case of general subcutaneous emphysema following coughing is by Cotton. In a paper upon enteric fever, by Blackader, it is stated that below the age of fifteen the duration of the fever in the great majority of cases is under three weeks. The onset is, however, more sudden than in adults. In only eight out of 100 cases a resemblance to Wunderlich's ascent was noted.

Elementary Bandaging and Surgical Dressing. By the late WALTER PYE. Revised by THOS. CARWARDINE. Ninth Edition. Pp. viii., 214. Bristol: John Wright & Co. 1901.—We are glad to welcome another edition of this little volume, which has proved so useful to students and nurses for the past sixteen years. The general arrangement of the book is unaltered. The illustrations have been added to and improved.

The Causes of Death among the Assured in the Scottish Widows' Fund and Life Assurance Society, from 1874 to 1894 inclusive. Reported by CLAUD MUIRHEAD, M.D. Pp. viii., 103. Edinburgh: R. & R. Clark, Limited. 1902.—This analysis of the causes of death amongst the assured during a period of twenty-one years cannot fail to be both interesting and instructive. The author's comments on cancer and consumption are of especial importance. As regards cancer he summarises the following conclusions:—

"1. The registered increase in the number of deaths from cancer is undoubted. This is proved by our own statistics, and corroborated by all other authorities.

"2. After allowing that this increase is not wholly real, but may be accounted for, to some extent, on the assumption that the true nature of obscure cases of malignant disease has been recognised with ever increasing certainty in recent years, and that, as a consequence, the statement of death has been made with greater precision than had been formerly the case, there remains a large real increase to account for the large and progressive mortality from this disease.

"3. The age period at which death from cancer is most frequent is gradually declining, according to the Scottish Widows' Fund returns.

"4. The average age at death from cancer among our members declined by two years from 1874-80 to 1888-94, as contrasted with a rise in the average at death from all causes of a little over two years.

"5. The office returns mark a *decrease* in deaths from *internal* cancer of 7.70 per cent., and an *increase* in deaths from *external* cancer of 18.89 per cent. of the percentages in the first septennium as contrasted with the third."

A consideration of the death-rate from consumption shews:—

1. That the death-rate from consumption among the general population decreased 16 per cent. in 1881-90 as compared with 1871-80.

2. That the death-rate among the members of the Scottish Widows' Fund:—

a. Decreased 15 per cent. from 1874-80 to 1881-87.

b. Decreased 27 per cent. from 1874-80 to 1888-94.

An examination of the tables shews that the prevalence of consumption is by no means confined to persons under middle life, and contradicts the popular belief that this disease belongs to the period of youth and early manhood. They also shew that 15 per cent. at least of proposers to the Society for assurance, and of those accepted by the Society, will shew a record of death by consumption among their parents. We are not entitled, because too much has been made of this inherited vulnerability in the past, wholly to ignore it, and to treat it as a negligible quantity.

Kitchen Physic. By W. T. FERNIE, M.D. Pp. xxviii., 596. Bristol: John Wright & Co. 1901.—It has been said truly, "There is no question more frequently asked, or which a doctor has more difficulty in answering to the satisfaction of himself and his patients, than 'What do you wish me to eat?'" And, as the author states in his preface, "all valid reasons have ceased to exist why most persons of ordinary intelligence should not gain the ability to solve such a question for themselves by learning the first principles which underlie kitchen physic and are plain of comprehension." There is in this volume a great deal of much practical value to the lay reader, and much too of academic interest, for the writer has the art of writing attractively on commonplace topics. For example, we find

that the pathology and the general lines of treatment of boils and carbuncles are plainly stated, and lead up to the dietetic indications and contra-indications and the use of various applications such as fomentations. Under the head of "Cancer" the question of various articles of food being a possible source of the disease is discussed, and under "Diarrhœa and Dysentery," "Digestion and its Affections," "Dropsy," "Gout," and so on, the suitable diet is carefully laid down. But the author has enhanced the value of his work by references to the dietetic methods of the German, French, and other nationalities, while his copious extracts from the writers of past times bear witness to the untiring labour and wide research of the author and add much to the interest of the subject.

The Sanitary Inspector's Handbook. By ALBERT TAYLOR. Third Edition. Pp. xvi., 408. London: H. K. Lewis. 1901.—In this third edition Mr. Taylor has, by careful additions and revision, maintained the useful character of the book. We are particularly satisfied with the short notes (p. 209) on infectious diseases, containing just what an inspector, who is not a doctor, requires to know; and are glad to find that these have been quoted from a reliable source, and afford really useful information—a statement which cannot be made about all recent text-books.

Syllabus of Lectures to Nurses. By ANDREW DAVIDSON, M.D. Pp. 101. London: Scientific Press, Limited. [N.D.].—This little book is exactly what its name indicates. It is divided into five parts: Anatomy; Physiology; First Aid; The Care of the Sick; and The Care of the Insane. It is carefully arranged in headings and is merely a list of chief points which have to be enlarged on by a lecturer. There is nothing in it to criticise. It will save anyone about to lecture to nurses a considerable amount of trouble in setting out the lines which one should take in giving an elementary course. It should also prove useful to nurses in giving them ideas as to what to look up in other books; beyond this it has no scope and is not meant to have.

Annual Report on the Year 1901. E. MERCK, Darmstadt.—The fifteenth volume of this instructive report was published in March, 1902. It contains a concise summary of recent pharmacological investigations. At the commencement there is a lengthy article of twenty-five pages, giving the results of investigations on opium tests. Other articles of interest are those on cacodylates, and various dietetic preparations. The latest results obtained by the newest and rarest of drugs are here to be found. The report is full of interest and is compiled with great judgment.

Editorial Notes.

The Coronation is over, the King is crowned. Long live the King! Surely it must be the first time in the history, not only of this but of all other countries, that the operation for appendicitis has postponed a Coronation, and that the Coronation would probably never have been possible but for the operation. The King and his subjects have every reason to be grateful to the surgeons who have so skilfully conducted him through the grave perils of appendicitis, and the profession generally cannot do otherwise than congratulate Sir Frederick Treves on the presence of mind and skill which enabled him to guide his Majesty through so grave a crisis. No surgeon could ever have had a more trying time than Sir Frederick during the half-hour or so preceding the finding of the pus, and what must have been his feeling of satisfaction on finding it we can only surmise: from that moment the life of the King was practically saved, and the whole nation must rejoice that no untoward accident has occurred to imperil or postpone his Majesty's recovery.

It is characteristic of so brave a patient that he should have wished to learn all there is to know of the history and pathology of his own malady, and that visit of his under the guidance of Sir Frederick Treves to the Museum of the Royal College of Surgeons shows that the conferring of the degree of F.R.C.S. has imbued his Majesty with a true scientific ardour. There is already abundant evidence that the King will continue to be one of the best of friends to the Royal Colleges of Physicians and Surgeons, whose roll is honoured by the presence of his august name. His Coronation gift to the hospitals, the King Edward's Hospital Fund, the King's Sanatorium for Consumptives, and the gift of Osborne House as a sanatorium for the officers of the navy and army, are recent illustrations of the keen interest which his Majesty takes in the work of our profession.

We are informed that the King is now in fact quite well. It is to be hoped that we shall hear no more of the inventions, which have come to us mostly from the West, that a second operation will be required to cure the appendicitis, and several other operations for the cure of cancer in the larynx and elsewhere. He has taken his turn in the *rôle* of patient, has acquitted himself with consummate fortitude, and has fairly earned immunity for many years to come.

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The City of Manchester must be congratulated on having arranged one of the most successful annual meetings of the British Medical Association of recent years. The meeting was worthy of one of the great provincial centres of medical teaching and practice, and it has demonstrated very clearly that it can and does provide the high standard of scientific and practical work that is now always associated with the best British Universities. The number of distinguished foreign guests who were present, and who took an active share in the work of the sections, gave an almost international character to the discussions.

The generous hospitality of the Lord Mayor and many private citizens greatly aided the complete success of the gathering, and the President will doubtless feel that the medical profession in Manchester has been well supported in its efforts on behalf of the Association.

There was some cause for regret in the perhaps unavoidable distances between many of the various hotels and lodgings and Owens College, where the meetings were mostly held, and we venture to suggest that in future some indication of the relative localities mentioned in the advance lists of lodgings and hotels given in the British Medical Journal should be indicated by a simple sketch or map of the town or city where a meeting is about to be held.

The Royal Infirmary of Manchester is externally most gloomy and forbidding; and though efforts have been made to bring the interior up to date as far as possible, we cannot help feeling that the governors should be enabled to carry out their suggested rebuilding scheme, and provide for the most important

hospital in their city a modern and more suitable building. One feature of student life there compares most favourably with that of our own Bristol students. We refer to athletics; for it was a pleasant surprise to find that they had large and well-kept grounds where cricket, tennis, hockey, football, &c., occupy the spare hours for recreation of a large number of the alumni. Perhaps if the University College, Bristol, could have a ground provided for similar purposes it would be less difficult to kindle greater enthusiasm amongst our students generally for healthy out-door sports.

The number of sectional meetings is now great, but at Manchester the attendance can only be described as having been good at very few. The medical and surgical sections were, as is usually the case, well patronised, and the discussions were perhaps less desultory than they not infrequently prove to be. An interesting discussion in the surgical section was the treatment of inoperable cancer. Apparently, although the value of the light treatment in rodent ulcer is undoubted, in other forms of carcinoma the general opinion was that it is of little benefit. One may perhaps be surprised by the view expressed by Freund and others at the section on the treatment of skin diseases that the X-rays have no bactericidal power. In the section of public health and also in the section of ethics, a somewhat novel feature was the reading of papers by gentlemen who were not members of the medical profession. The papers will no doubt be read in the pages of the *Journal*, but the method of delivery of those given before the public health section was said to have been worthy of a far larger audience than was present to hear them.

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Our colleague, Dr. E. Markham Skerritt, had the honour conferred upon him of being appointed to the office of Treasurer of the British Medical Association, and the present is a somewhat critical time in the history of the Association when the presence of good judgment and a sound knowledge of finance in its treasurer are more than usually needful. We venture to think that it would be difficult to find anyone better fitted than Dr. Skerritt for the work he has accepted, and we hope that the

responsibilities he undertook at Manchester, superadded to the numerous duties which he is called upon to perform in our own city and neighbourhood, will not prove to be unduly onerous.

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The annual report of the Medical Officer of Health for Bristol contains much interesting matter. The large amount of work done in the laboratory is worthy of especial recognition, and we note that in 1901 a sum total of close upon three thousand examinations for the establishment of the diagnosis of diphtheria and enteric fever were made in the offices of the medical officer. This large number is mainly due to the active steps taken to follow up diphtheria contacts at school or at home; but this kind of work has become a necessary adjunct to any efficient health department, and should be performed by special assistants in a fully-equipped municipal laboratory. It is surprising to find that this work should be spoken of as "voluntary," and is not part of the recognised duties of the officers of the health department of the city. Such bacteriological work has become an absolute necessity to the general medical practitioner, who has neither the time nor the ability to carry out such researches in his consulting-room or surgery. It should not be left to private enterprise or to the voluntary goodwill of the officers of the department to provide a well-equipped laboratory, where such examinations may be made as are necessary to the diagnosis of infectious maladies.

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The Asylum, Fishponds.—As our City and County Asylum at Fishponds is now in its last stage of development, its accommodation having reached, by reason of the recent extensions, to within 50 of the 1,000 limit, it may be of interest to review at a glance the various phases in the growth of the building.

Opened in 1861 with accommodation for 200 patients, it has been added to as follows:

In 1861	number provided for	200,	the population of Bristol	being	154,093
1869	increase of	36	,,	,,	154,093
1878	,,	120	,,	,,	186,428
1888	,,	437	,,	,,	206,503
1900	,,	150	,,	,,	330,000

In 1892 the central block was enlarged so as to provide administrative accommodation for over 1,000 patients and staff.

It will be seen that with the population of the city at 330,000, the number provided for—namely, 1,000—will be approximately in accordance with the average ratio of one insane in every three hundred people; the exact proportion for England and Wales being in 1901, 1 in 301.32, as compared with 1 in 335 in 1892 and 1 in 536 in 1859.

The new block for 150 women consists, like the rest of the building, of two storeys, but, unlike it, is designed on the separate block system instead of the continuous corridor plan, the advantage being that this contrivance obviates all possibility of two adjoining wards being thrown into one and left in charge of one ward attendant; also it provides better isolation in case of fire or infectious disease.

The architecture is of the same style as that of the older parts of the Institution, being faced with pennant ashlar and finished with Box ground stone dressings. The floors and ceilings are rendered impervious to fire by means of a thick layer of concrete.

Inside, the wards have an artistic appearance: the floors are of American maple, and the furniture is not only comfortable but elegant. As regards air space, there is an allowance of 1,200 cubic feet per patient in the sick ward, and the advantages of a heating apparatus by Hadyn, as well as electric lighting—as in the rest of the building,—add considerably to the comfort of the wards.

The new block includes a general bath-room with six porcelain baths, and at the back, overlooking Purdown, is an annexe for night nurses and sick nurses.

At a distance from the main building is the new infectious hospital, with beds for 12 patients; the building has an administrative block of its own, and is, in fact, self-contained.

There was also opened in 1900 a new dining-hall for male patients. This is a large and lofty room, with good acoustic properties, and with a permanent stage, together with the necessary green-rooms and the usual stage fittings.

Notes on New Drugs and Preparations for the Sick.

Glyco-Heroin; Ergoapiol.—MARTIN H. SMITH Co., New York; CHRISTY & Co., London.—We have received samples of these proprietary preparations of well-known drugs.

The Heroin compound is a glycerine solution containing one-sixteenth of a grain of heroin in each teaspoonful dose, with the addition of white pine bark, ammonium hypophosphite, and balsam of tolu. It forms a dark amber liquid, clear, with an agreeable aromatic odour and taste. Heroin is rapidly becoming established as a useful sedative in respiratory conditions where a cough sedative is desirable, and it appears to have many advantages over morphia, codeia, and other opium alkaloids. It rarely fails to give marked relief, even when given alone in tabloid or powder, but it seems likely that such a combination as this will be more effective than the simple solution of heroin.

The Ergoapiol capsules have given excellent results as an ideal hæmagogue and emmenagogue combination.

Cascara Evacuant.—PARKE, DAVIS & Co., London.—Yet another preparation of Cascara. It is difficult to say which is the best. This one is described as "an active and agreeable preparation of the unchanged bitterless glucosides of cascara sagrada, possessing all the desirable laxative properties of this valuable drug." It is based upon the discovery that the laxative effect is due not alone to the presence of the bitter glucoside, but also to the action of a bitterless glucoside. It is prepared without the use of alkalies, which commonly destroy some portion of the bitterless laxative, and in a concentrated form, the dose ranging from 10 to 30 minims. It has a pleasant aromatic taste, absolutely free from the intense bitter of the ordinary liquid extract of the rhamnus purshianus.

Enzymol.—FAIRCHILD BROS. & FOSTER.—A purified solution of the proteolytic enzyme, especially prepared for external application. It is supposed to dissolve all septic matter, correct offensive odours, and impart a healthy stimulus to the affected surface. By the addition of an equal volume of water it becomes an artificial gastric juice, which may be applied freely to the surface of wounds either by spray, compress, or injection.

Tabloids and Soloids.—BURROUGHS, WELLCOME & Co., London.

Kino Compound Powder, B.P. gr. 5.—Kino is a well known, but little used, astringent, of considerable service in the treatment of certain forms of diarrhœa and dysentery. This five grain tabloid is a convenient form for its administration. It will be remembered that this compound powder contains 5 per cent. of opium.

Compound Liquorice Powder, gr. 30.—It is a common occurrence for patients to refuse to take compound liquorice powder as ordinarily prescribed, on account of its unpleasant taste when mixed with water. The "Tabloid" has been introduced with the view of providing a convenient means of administering this well-known laxative. Each represents thirty grains of the Compound Liquorice Powder of the British Pharmacopœia, and two to four may be swallowed, with water, for a dose.

Ammonium Chloride and Liquorice.—

Ammon. Chloride, gr. 3.
Ext. Glycyrrhizæ, gr. ij.

It has been long recognised that the unpleasant taste of ammonium chloride may be disguised by the addition of extract of liquorice. Each "Tabloid" product contains three grains of ammonium chloride and two grains of extract of liquorice, and presents an extremely convenient means of administering the combination. One may be allowed to dissolve slowly in the mouth as often as may be necessary.

Apomorphine Compound.—

Apomorphine Hydrochloride,	gr. 1/50	(0.0013 gm.)
Ammonium Chloride	gr. 3	(0.194 gm.)
Extract of Liquorice	gr. 1½	(0.097 gm.)

As is well known, apomorphine, in small doses, frequently repeated, is used internally in the treatment of certain affections of the respiratory organs; and it is said to be of especial value in cases of chronic bronchitis, bronchorrhœa and whooping cough. A useful combination is presented in "Tabloid" Apomorphine Compound, in which product the action of the apomorphine is aided by the stimulant-expectorant properties of ammonium chloride and by the demulcent qualities of extract of liquorice. One may be slowly dissolved in the mouth, or swallowed with a little water, every hour or every other hour, as the symptoms of the patient may indicate.

Soloid Sodium Hydroxide, gr. 2;
Soloid Pyrogallic Acid, gr. ½.

These products have recently been introduced with the view of providing a ready means of estimating the degree of oxygenation

of a sewage effluent. It is generally admitted that a sewage effluent which is well charged with oxygen will almost certainly be satisfactory, whereas if the effluent contains little or no free oxygen it will be unsatisfactory. The examination by means of the above "Soloid" products is very simple, and may be conducted in the following manner:—Fill a wide-mouthed bottle, holding about four ounces, with the effluent as it runs from the beds, drop in one "Soloid" product of each reagent and insert the stopper carefully and in such a way as not to include any bubble of air. Shake the bottle for about half a minute and note the effect produced. If the liquid remain colourless or only faintly coloured, the oxygenation is not satisfactory. If the liquid assume a rich red-brown colour, the oxygenation is satisfactory. We have made experiments with these and find they do exactly what is claimed for them.

The Library of the Bristol Medico-Chirurgical Society.

The following donations have been received since the publication of the List in June:

August 31st, 1902.

The Executors of the late Joshua Smith Beddome (1)	8	volumes.
W. Fairbanks, M.B. (2)	28	,,
Mrs. E. Long Fox (3)	19	,,
L. M. Griffiths (4)	3	,,

A framed portrait has been presented by Dr. D. S. Davies, and unbound periodicals have been received from Mrs. Long Fox.

FORTY-FIFTH LIST OF BOOKS.

The titles of books mentioned in previous lists are not repeated.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Abercrombie, J.....	*On the Intellectual Powers*	(1) 6th Ed.	1836
,, ...	*The Culture and Discipline of the Mind* ...	(1) 3rd Ed.	1837

Astruc, [J.] ... *Treatise on the Venereal Disease* (Tr. by S. Chapman) (2) 2nd Ed. 1770

Ballantyne, J. W. *Manual of Antenatal Pathology and Hygiene* 1902

Ballard, T. ... *Diseases Peculiar to Infants and Mothers* ... ... (2) 186

Baly and W. W. Gull, W. *Reports on Epidemic Cholera* ... ... (2) 1854

Barwell, R. ... *Diseases of the Joints* ... ... (4) 1861

Bastian, H. C. ... *Studies in Heterogenesis*, Part II. 1901

Bath, Medical Guide to the Hot Mineral Baths of 1901

Baudelocque, [J. L.] *L'Art des Accouchemens*, Tomes i., ii. ... ... (2) 1781

Benedikt, M. ... *D'Anthropométrie Cranio - Céphalique* (Tr. par P. Keraval) ... ... (3) 1889

Bigg, H. ... ... *Caries of the Spine* 1902

Billard, C. M. ... *Maladies des Enfants* ... ... (2) 3e Éd. 1837

Birkett, J. ... .. *The Diseases of the Breast* ... ... (2) 1850

Blundell, J. ... *Diseases of Women.* (Ed. by T. Castle) ... ... (2) 1837

Buchan, W. ... *Domestic Medicine* ... ... (1) 11th Ed. 1790

Burns, J. ... ... *The Principles of Midwifery* ... ... (2) 9th Ed. 1837

Canney, L. ... ... *Typhoid the Destroyer of Armies and its Abolition* (3) 1901

Cooper, S. ... ... *First Lines of Surgery* ... ... (2) [2nd] Ed. 1809

Cotton, R. P. ... *Phthisis and the Stethoscope* ... ... (2) 1851

Cunningham, D. J. [Ed.] *Text-Book of Anatomy* 1902

Day, H. ... ... *Clinical Histories with Comments* ... ... (3) 1866

Dorland, W. A. N. *The American Illustrated Medical Dictionary* 1900

Drake, N. ... ... *Mornings in Spring* ... ... (1) 2 vols. 1828

Duchenne, G. B. *Album de Photographies pathologiques* ... ... (3) 1862

Fyffe, W. J. ... *An Address on the Preservation of Health During School Boy Life* ... ... (3) [N.D.]

Good, J. M. ... *Song of Songs* ... ... (1) 1803

,, ... *The Book of Job* ... ... (1) 1812

Gould and J. C. Warren, A. P. [Eds.] *International Text-Book of Surgery.* Vol. I. 1900

Gull, W. Baly and W. W. *Reports on Epidemic Cholera* ... ... (2) 1854

Harrison, R. ... *Some Points in Practical Surgery Suggested by the Study of the Life and Work of John Hunter* 1902

Heath, C. ... ... *Minor Surgery and Bandaging* ... ... (2) 3rd Ed. 1866

Hills, M. ... ... *A Treatise on the Operation of Cupping*... ... ... (3) 1839

Hoffman, F. ... *Opera Omnia Physico-Medica.* Tome v.; Suppl. ii., Parts i., ii., iii. (2) 1748–53

Hood, P. ... ... *Diseases of Children* ... ... (4) 1845

Knapp, P. C. ... *Intra-Cranial Growths* ... . (3) 1891

Laurie, J. ... ... *Homœopathic Domestic Medicine* ... . (2) 1851

Lendon, A. A. ... *Clinical Lectures on Hydatid Disease of the Lungs* .. 1902

Leyden, E. ... *Klinik der Rückenmarks-Krankheiten*, Bd. 1... ... (3) 1874

Mackenzie, F. W. *Phlegmasia Dolens* ... ... (3) 1862

Marsh, H. ... ... *Clinical Essays and Lectures* 1902

Mead, R. ... ... *Medical Works* ... ... (2) 1762

Moore, G. ... ... *Health, Disease and Remedy* ... ... (2) 1850

Ogle, J. W. ... *Miscellaneous Contributions to the Study of Pathology* (3) 1868

Piper, H. ... ... *Schriftproben von Schwachsinnigen resp. idiotischen Kindern* ... ... (3) 1893

Pulte, J. H. ...	*Homœopathic Domestic Physician*	(2)	3rd Ed.	1855
Quincy, J.	*Lexicon Physico-Medicum*	(2)	11th Ed.	1794
Remak, E.	*Uber die Localisation atrophischer Spinallähmungen*	(3)		1879
Riverius, L. ...	*The Universal Body of Physick* (Tr. by W. Carr)	(2)		1657
Rowe, G. R. ...	*Disorders of Females and Children*	(2)		1857
Shaw, W. N. ...	*Ventilation as a Dynamical Problem*			1902
Sibson, F.	*On the Causes which Excite and Influence Respiration in Health and Disease*	(3)		[N.D.]
Stilling, J. ...	*Pseudo-isochromatische Tafeln für die Prüfung des Farbensinnes*	(3)		1883
Smith, W. T. ...	*Leucorrhœa*	(2)		1855
Sydenham, T. ...	*The Whole Works of* (Tr. by J. Pechey)	(2)		1722
Thompson, C. J. S.	*Aids to Practical Dispensing*		3rd Ed.	1902
Warren and A. P. Gould, J. C. [**Eds.**]	*International Text-Book of Surgery.* Vol. I.			1900
West, S.	*Diseases of the Organs of Respiration*		2 vols.	1902
Williams, J. ...	*Insanity*	(2)	2nd Ed.	1852
Wilson, J.	*The Water Cure*	(2)	3rd Ed.	1843
Wood, H. C. ...	*Fever*	(3)		[N.D.]

TRANSACTIONS, REPORTS, JOURNALS, &c.

American Medicine	Vol. II.	[1901]
American Pediatric Society, Transactions of the	Vol. XIII.	1901
Berliner klinische Wochenschrift	(3)	1873
Bristol Medico-Chirurgical Journal	Vol. XIX.	1901
Bristol Port Sanitary District—Annual Report for 1901		1902
Catalogue of Books, The English	(4)	1857–61
Dictionary of Bathing Places, Bradshaw's		1902
Edinburgh Medical Journal, The	N.S., Vol. XI.	1902
Hospital, The	Vol. XXXI.	1902
HOSPITALS—		
Johns Hopkins Hospital Reports	Vol. X., Nos. 3-4-5	1902
Middlesex Hospital Reports for 1900		1902
St. Thomas's Hospital Reports	N.S., Vol. XXIX.	1902
Library, The	Vol. II.	1901
Library Association Year Book, The		1902
Lunacy, Report of the Metropolitan Commissioners in	(2)	1844
Medical Chronicle, The	4th Ser., Vol. I.	[1901]
Rhode Island Medical Society, Transactions of the	Vol. VI., Part III.	1902

In the paper entitled "Some Things of General Interest in the Bristol Medical Library,"[1] which Mr. L. M. Griffiths read before the Library Association, some bibliographical points are of medical interest.

The Bristol Library Society, dating from 1772, in course of time had practically taken possession of the premises of the City Library in King Street. In 1855, when it was known as the Bristol Library, it

[1] *Library Association Record*, June and July, 1901.

moved to premises near the top of Park Street, which are now being demolished to make room for the Art Gallery, and in 1856 it received the collection of books which had been formed by the doctors under the title of the Bristol Medical Library, which had been established in Orchard Street. The transfer was made on the condition that its efficiency should be constantly maintained. In 1867 the Society allied itself to the Bristol Philosophical and Literary Institution which had been founded in 1817, and in 1871, in the building known as the Museum and Library, the work of the two societies was carried on conjointly. Many difficulties beset the new institution; the stipulation about the medical books was not kept, and in 1893 Sir Charles Wathen, then Mayor of Bristol, undertook to pay the debts of the institution on condition that the shareholders presented the building and its contents to the city. The present Medical Library in Bristol, begun in 1891, now has the custody of the books which, belonging to the former Medical Library, have passed through so many vicissitudes of ownership.

The Bristol Medical Library does not possess a Caxton or a book printed by any of his contemporaries, or even a De Worde or a Pynson, but it has a book printed in the year IX.

In 1834 James Atkinson, a surgeon of York, issued a Medical Bibliography, including only A and B, which he did not intend to carry further. He says: "Bibliography is a dry occupation—a *caput mortuum*—it is a borrowed production, which brings very little grist to the mill; and so difficult and tedious is the object, of laying before our eyes all the real or reported copies or editions of the works enumerated, that almost every line of our reports may be suspected of falsehood. How are we to collect, how to produce, how to examine, the originals? Many books are so scarce, so sequestered in private hands, or in the mansions of the great, that even the keen eyes of luciferous booksellers cannot find them. And if they cannot, who the deuce can?" To render bibliography less dry, he added to his lists of books and periodical literature, which are very commendable, observations on the authors. The style of these may be gathered from two instances. Of Dr. Beddoes he says: "As an author, he appears to have been always in a hurry to reach the mart of novelty and invention, lest others should arrive there before him; so that it became, through life, a perpetual tilt and tournament for fame." He considers that Benjamin Brodie, who was more than a distinguished surgeon, has been fortunate in regard to his surgical pursuits, and adds that "generally speaking, the surgeon who exerts himself, however justly, as a philosopher and a naturalist, is often superseded in the surgical department by surgeons his inferiors. The idle world seldom gives a man credit for excellence in two attainments. Ex. gr. I plays a bit at top o' the fiddle; so neighbours say I can do nothing else." About bibliography generally Atkinson says: "No man's industry is mis-spent, if he merely clear the obstruction from any path; and the very attempt to show what is right, frequently exposes that which is wrong; so that the immediate blunders of one person rectify those of another: and he ever must deserve well of society who attempts improvement."

Remembering the difficulties and dangers of subject-classification, and our own mistakes, we shall be lenient to the errors of others, and "forbear to judge; for we are sinners all;" but it is difficult to forgive the British Museum for placing Ziemssen's *Cyclopædia of Medicine* in a list of bibliographical works, or for putting Holden's *Landmarks*, a book which deals with surface anatomy, under the heading of "History of Medicine," or worst of all, for classing under "Obstetrics," a work on

"Child Labour," especially as it adds immediately after the entry that it was issued by the American Economic Association.

There is no better instance of careful bibliography than the *Index-Catalogue of the Library of the Surgeon-General of the United States Army*. Sixteen volumes were issued in the first series, and the sixth volume of the second series is in the letter H. The references to Cholera in the two volumes in the two series may be taken as an example of its value. In the first of these the titles cover 152 pages, and in the second 102, a fairly good start for the man who wants to get up the subject, It is only right to mention the *Index Medicus*, a monthly classified record of current medical literature, a work which grew out of the *Index-Catalogue*. After twenty-one years of existence, during which it passed through many difficulties, it came through insufficient support to an end. It is a book simply indispensable to the librarian and the student. The most expert cataloguer must admit its thoroughness and its splendid accuracy. Its place has been excellently filled by *Bibliographia Medica*, working on almost exactly similar lines, but incorporating the Dewey system. It is issued by the *Institut de Bibliographie* of Paris, and fortunate is the branch of literature that has such an invaluable help.

A puzzling bit of bibliography comes before us in reference to the anatomical work of Bidloo, who in 1685 issued from Amsterdam his *Anatomia Humani Corporis*. In 1698 the same plates with reference in red ink and nine additional plates were printed at Oxford, and on the engraved title the portion indicating Bidloo's authorship is covered by a slip declaring it to be "The Anatomy of Humane Bodies by Will^m. Cowper, Surgeon," and this is so neatly pasted over as to escape recognition until very closely examined. Cowper, in an address to the reader, says: "These Figures were Drawn after the Life, by the Masterly Painter G. de Lairess, and Engrav'd by no less a Hand, and Represent the Parts of Humane Bodies far beyond any Exstant; and were some time since Publish'd by Dr. Bidloo, now Professor of Anatomy in the University of Leyden," and the theory is that Cowper bought the plates and considered that the additions he made were sufficient to justify him in calling the work his own. But this hardly seems to be ideal bibliographical morality, and the view which Bidloo took of the transaction may be gathered from a fifty-four page pamphlet which he issued from Leyden in 1700 entitled *Gulielmus Cowper criminis literarii citatus, coram tribunali Nob. Amp. Soc. Brit.-Reg.* Cowper appears to have made a tardy recognition of Bidloo in his *Εὐχαριστία, in qua dotes plurimæ et singulares Godefridi Bidloo, perita anatomica*, [etc.]. issued in 1701. But the mystery becomes more involved when we look at a book containing the same plates which was issued at Leyden in 1737 under the supervision of C. B. Albinus who described the work as the second edition of Cowper's book. This seems extraordinary when we remember that Albinus was Professor of Medicine, Anatomy, Surgery and Practice in the University of Utrecht, and could hardly have been ignorant of the incidents connected with Bidloo and Cowper.

MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

May 14th, 1902.

Dr. Barclay J. Baron, President, in the Chair.

Mr. J. Lacy Firth showed three cases illustrating the results obtained from the **radical mastoid operation.** Case I. was that of a man, aged 27, who had had ear discharge on the right side for twenty years, and had twice had mastoid incisions made for abscess, and there had been a persistent mastoid sinus for a year. Eleven months previously the radical operation had been performed by the speaker. The skin and the meatal (conchal flap) incisions had been those advocated by Ballance, the after-treatment that by tamponading through the enlarged meatus. There had been no discharge from the ear since about six weeks after the operation, and the antro-attico-tympanal cavity was completely epidermized. The patient had had some facial paralysis after the operation, but it had rapidly and practically completely subsided. Case II. was that of a young woman of 20 who had had ear discharge for eleven years, and a persistent discharging mastoid sinus for ten years. The radical mastoid operation had been performed eleven months previously. In the operation the speaker had followed Ballance's directions in all particulars, the second or skin-grafting operation being done sixteen days after the first operation. There had been no ear discharge since about five weeks after the last operation, and the bony cavity was completely epidermized and dry and easily accessible through the enlarged meatus. The latter was not conspicuous unless closely examined. Case III. was a little girl, 8 years of age, with a history of ear discharge of five years duration. Eight months previously a mastoid abscess had been opened, and subsequently had healed. A month previously a second mastoid abscess had formed and left a sinus. The radical operation, in so far as it affected the bone, had been exactly the same as in the other two cases, and had been performed two and a half months previously. The meatus had not been incised. The after-treatment had been by tamponading, chiefly through the retro-auricular opening. It had been decided to make this opening a persistent one, and this had been accomplished. Through that opening the completely epidermized antrum was easily seen, and the tympanic chamber was now also almost completely covered with skin. Thus the drainage of the bony cavity after the operation had been a "double-barrelled" one; viz., by the retro-auricular

opening and by the meatus. This method had been selected partly because the child was very nervous, and difficulty would have arisen from this in the subsequent dressing of the case if the meatus had been incised, partly because the skin over the mastoid had been extensively diseased at the time of operation. It was intended to leave the opening behind the ear unclosed for six or twelve months, until it was quite certain that suppuration in the ear had permanently ceased, and then to close it by a plastic operation. The patient could hear a whisper at 10 feet distance with the affected ear in spite of the epidermization and the absence of the membrana tympani and ossicles. Mr. Firth alluded to the improvements which had been made in recent years in the conduct of the mastoid operation. Now practically all surgeons operated on the bone itself in much the same way; that is, they aimed to throw the antro-attico-tympanal cavity into one smooth-walled cavity, which was easily drained, but in their method of incising the skin and the meatus and in the mode of treatment after the operation they differed considerably. Of the three cases he had shown each differed somewhat, in these latter respects, from the others, but the results in each had been satisfactory.—Mr. W. H. HARSANT alluded to the much better results as to appearance in the two cases in which the meatus had been enlarged than in that with the retro-auricular opening. He was inclined to think that the complete mastoid operation, the conduct of which had been so much improved of late years, was being overdone. In saying this he made no reference to the cases which had been shown to this meeting. The operation seemed to be performed in cases which might be satisfactorily treated by ordinary methods. An objection to Ballance's operation was the necessity of performing a second operation under an anæsthetic.—Mr. FIRTH, in reply, stated that for simple chronic otorrhœa without ominous symptoms he would not perform the radical operation until he had tried all other methods of treatment worth trying and failed with them. The cases brought forward belonged to the class in which the operation was undoubtedly indicated.

Dr. WATSON WILLIAMS showed a case of **acromegaly** in an adult male, which began to develop in early boyhood about the eighth year, but had apparently remained in *statu quo* for several years, and displayed none of the usual slow progressive tendency. He also demonstrated a case of **myxœdema** in a female, aged 58, which had been under treatment by thyroid gland preparations for ten years. The patient's health had been well maintained, and was better than it was when the patient had been shown to the Society nine years previously.

Mr. G. MUNRO SMITH described a **case of loose body in the knee-joint**, and showed the patient on whom he had operated for that condition. The patient, a man aged 39, was liable to severe pain in the right knee. At the operation a portion of articular cartilage was removed which had become detached

from the outer side of the internal condyle. The speaker suggested this curious lesion might be due, if it occurred in extreme flexion of the knee, to the pressure of the patella upon the outer border of the condyle; if it occurred in extension, it might be the result of extreme tension of the crucial ligament attached to the condyle. Mr. Munro Smith also showed a man upon whom he had operated for **rupture of the small intestine.** The patient, a coal miner, aged 54, had been working with a pickaxe one morning between 8 and 9 a.m., when a lump of coal fell, striking the axe and causing its handle to strike him on the abdomen near Poupart's ligament on the right side. When first seen by Mr. Smith about 11 o'clock the patient was moderately collapsed; writhing with paroxysmal pain, which radiated from the iliac region where bruising was noticed, but no wound; and had retching but no actual sickness, thoracic breathing, and an abdominal facies. At 6 p.m. a median laparotomy was performed. A rupture was discovered in the small intestine, about three-quarters of an inch long, and through this the intestinal contents, a yellowish brown fluid, were being pumped out into the peritoneal cavity. The wound was sutured with a continuous silk suture passing through all the coats, and a second row of interrupted Lembert's stitches externally. The peritoneum was mopped out and the abdomen closed. Recovery followed. Some weeks later the patient was operated upon for a hernia due to separation of the recti muscles. Forty sutures were used at the operation for the cure of this, which was successful. Rupture of the intestine, the speaker stated, was a very fatal form of accident. MacCormac had collected 13 fatal cases, and later Sieur had collected 38 cases, of which 20 recovered.—Mr. C. A. MORTON inquired if the collected cases alluded to were the consecutive cases of one operator or cases collected from the journals, as in the latter case they would be too favourable and unreliable.—Dr. JAMES SWAIN said that in these abdominal injuries there arose the difficulty of deciding whether there was only contusion present or whether there was a rupture of viscera. Even a slight injury might cause severe shock. If the injury was simple the shock tended to pass off, but if there was severe visceral injury it tended to increase. Another form of shock was that known as relapsing shock, in which the patient recovered for a short time and then became bad again, and this suggested hemorrhage. In the early stage, while the abdomen was still retracted, the diminution of liver dulness was a valuable sign of a ruptured hollow viscus, but later when tympanites had set in the sign was of no value.—Mr. PAUL BUSH thought the omission of peritoneal irrigation had been wise.—Mr. LACE related the case of a groom he had seen who had three hours previously been kicked by a horse in the right groin. There had been signs of bruising, slight rigidity below the umbilicus, and general tenderness. The man said he was feeling better than he had felt at first. It was

elicited that there had been a hernia in the right groin for some years. The hernial sac was opened and found to contain a little fluid, and exploration through the neck of the sac revealed the vermiform appendix hanging by a thread, and it was removed. When the operation was nearly completed out popped a coil of intestine which had been torn completely across, but the cut edges of each segment had been for the time being closed by peritoneal adhesions, so that extravasation of bowel contents had been prevented. The edges were stuck together like those of a divided india-rubber tube. The bowel was sutured and the man recovered.—Mr. MUNRO SMITH replied that there had been moderate shock only at first, that retching had been continuous but there had been no actual vomiting, and the liver dulness had not been completely obliterated.

Mr. A. W. PRICHARD read notes on a **case of pylorectomy**, and showed the patient and the specimens obtained. The patient was a woman of 27 years of age. For nine years she had been liable to pain after eating; this had been constant for three years. Latterly vomiting had been frequent and copious, and streaks of blood had been found in the vomit. She had lost much flesh. The patient had a tubercular aspect, but no disease was found except that of the digestive organs. There was a swelling in the upper part of the abdomen extending from the ensiform cartilage to the umbilicus level. Dulness to percussion existed below the umbilicus after taking food. Laparotomy was performed, and the pylorus and neighbouring parts of the stomach found to be very much thickened, as though involved in a tumour, and these parts were therefore removed. Two hours after the operation two pints of saline fluid were transfused into a vein. The patient only vomited once after the operation. She now feels better than she has done for years. The nature of the affection was doubtful. The section surface of the indurated parts was white and looked like scirrhus, but the microscope showed that it certainly was not carcinoma. The question was whether it might not be of a tubercular and inflammatory nature, or whether it was sarcoma. The speaker had to thank Mr. Mole for valuable assistance at the operation and since.—Mr. C. A. MORTON, after examining the section, thought it might be inflammatory.—Mr. W. H. HARSANT and Mr. PAUL BUSH thought the swelling was a new growth.—Mr. MUNRO SMITH said that many of the sections showed numerous round cells grouped about the vessels. The cells might be those of a sarcoma —Dr. J. SWAIN said that at the operation the growth felt like a malignant tumour, but the history of the case negatived that view.

Mr. C. A. MORTON read a paper on a series of cases of **operation for tumours of the thyroid gland.** All the cases, ten in number, were of innocent tumours, and had produced unsymmetrical swellings in the gland. He had only operated, with

perhaps one exception, because the swellings were causing distress in breathing or because the enlargement was tending to increase downwards towards the mediastinum. Nine of the patients were females. In all the cases except one the tumours had been removed. Two of the cases were of cystic adenoma. The case in which he had not removed the tumour was that of a man of 64. His tumour was cystic and of the size of an orange, and there was extensive calcification of its walls. It had been treated by incision and drainage in 1898. There had been stridor some days after the operation which must have been from spasm, not from compression of the trachea, as the insertion of an ordinary tracheotomy tube had relieved it. A sinus persisted for several years, but lately this had closed. Mr. Morton alluded to the necessity of cutting well down into the proper capsule of the tumours before attempting to enucleate them. The bleeding might be free. Examination should be made for other growths than those most obvious. The difficulty of distinguishing between a cyst and a solid adenoma was mentioned, and indicated that enucleation should be the treatment in either case.—Dr. J. SWAIN agreed that it was advisable to operate early on the tumours growing low down in the neck. He thought it was a good thing to allow the patient to rally from the anæsthesia before finally closing the skin wound.—Mr. HARSANT asked if there had been any troublesome recurrent hemorrhage. In some recorded cases this had been very severe. Personally he felt less anxious after thyroidectomy than after the enucleation of adenomata.—Dr. STACK alluded to the plan he had seen Mr. Berry successfully adopt of very quickly enucleating the tumours and then seizing two or three points at random in the fundus of the cavity left and pulling them up and thus bringing the deep parts into view.—Mr. PAUL BUSH said that the cysts shelled out as easily as the solid tumours. He believed in draining the cavity left for twenty-four hours and leaving a stitch to tie later where the tube had been. There was nearly always some bleeding after enucleation.—Mr. HANCOCKE WATHEN alluded to the apparent frequency of these thyroid swellings in the district, and asked if it was due to the water supply.—Mr. MORTON replied that he had had no trouble from recurrent hemorrhage.

Local Medical Notes.

University College, Bristol.—The following students of the College have been successful in recent examinations, viz.:—Mr. D. T. Price in the Final, and Mr. T. Pratt in the Intermediate, M.B. Examinations of the London University; Mr.

C. Corfield in the M.R.C.S. and L.R.C.P.; and Messrs. C. J. Taylor and W. P. Taylor in the L.S.A. Examinations.

D. T. Price, M.B. Lond., has been appointed Junior House Surgeon to the Salop Infirmary, Shrewsbury; J. C. Clayton, M.R.C.S., L.R.C.P., Junior House Physician, Wolverhampton and Staffordshire General Hospital.

The Bristol General Hospital.—Now that the work is completed, and the various artificers who have for so many months graced the out-patient department of the Hospital with their presence and with their appurtenances—their scaffoldings, implements of labour, bricks, mortar, and other raw material—have at last departed, the great improvements which have been effected in the department can be satisfactorily estimated and appreciated. Those who remember the old arrangements for the reception of casualties, the narrow and shabby entrance, the dull and awkward passages, the small, inconvenient, and often crowded casualty room, will admit that those arrangements have been vastly improved. Through wide and folding-doors the out-patients now pass into a spacious and imposing hall of entrance, bright and cheerful in aspect. Turning to the left beyond this they pass to two large, comfortable and warm waiting-rooms, which communicate with the casualty-rooms. The new main casualty-room has been constructed on modern and aseptic principles, and the excellence of the arrangements leaves little to be desired. Opening into the main room is a second one of good size, available for special cases or for operations.

One of the most striking of the new additions is the chamber set apart for electrical and hydropathic treatment. In it are found numerous baths of various forms, each supplied elaborately with ingress and egress water-pipes and stop-cocks, and with refined electrical adjuncts. Here also are installed some of the most modern Finsen light lamps. But it would really require the pen of a specialist to adequately describe the charms of this attractive room. Two other rooms have, in addition, been set apart for radiography.

The old dispensary and adjacent waiting-rooms have been replaced by new structures of more convenient, comfortable and spacious design. The special rooms of the ophthalmic and laryngological department have shared in the improvements proportionately to the departments already mentioned, and the main room, the dark room, and the adjacent waiting-rooms are all excellent. All the new rooms are well supplied with the electric light, which light, indeed, is now used throughout the Hospital.

We congratulate the committee upon having entered upon and completed a far-reaching scheme of improvement. We trust a similar discretion and zeal will shortly lead them to take in hand the renovation on modern principles of the existing

operating theatre and the construction of a second theatre; the want of the latter is becoming more and more felt.

The General Hospital Fête.—This *fête* was held at the Clifton Zoological Gardens on June 12th and following days. The fourth day (Monday) was an extra day, arranged in the hope of compensating in some degree for the losses sustained through the bad weather of the other days. If the Committee of Management had made special efforts to secure three of the worst possible days in the season for the *fête*, they could hardly have selected days more suitable for the purpose than the fateful days which they actually did select. There was an almost continuous downpour of rain from the time of the opening ceremony until the evening of the last day. Most things animate and inanimate became soaked, and the mud underfoot, and indeed that on foot and on skirt, was a thing never to be forgotten. It became finally almost dangerous to embark upon the sea of mud to which the formerly well-kemped lawns had given place. On the evening of the last day the weather improved, and, encouraged by it, a large number of people visited the grounds that evening, showing what a great success was likely to have been achieved under favourable conditions. The admirable spirit, however, of those who took an active part in organising and conducting the *fête* was such that a great success was made of it in spite of the incorrigible misbehaviour of the weather.

The amount taken in the Gardens was about £800. The treasurers had previously collected subscriptions amounting to £1,000. Mr. Spark Evans, with great generosity, recently gave £500 to the funds, which is some compensation for the loss due to the bad weather. After all expenses have been deducted, therefore, the Hospital will gain some £2,000 as a result of the labours of those who devoted so much time and trouble to the organisation of the *fête* and to enlisting the sympathy and support of generous subscribers.